THE CULTIVATOR.

THIRD — To Improve the Soil and the Mind. — SERIES.

VOL. II. — ALBANY, FEBRUARY, 1854. — No. II.

"We have Compassed this Mountain long enough."

THE object of the premiums offered by Agricultural Societies generally, is two-fold; first, to encourage the best kinds of farming, by rewards for the best crops, best implements, and the finest animals; and secondly to render the fairs so attractive by an assemblage of rare and interesting objects, that a large multitude may be induced to attend and pay the accustomed fee of admittance, to meet the expenses necessarily incurred. The real and sole object of an agricultural fair, should be to impart valuable information to the whole community—it should be a school of instruction in farming generally. What portion of the visitors attend for this object, and what portion merely to gratify a love of novelty and sight-seeing, we leave for our readers to decide. Certain it is that the managers of fairs have found it necessary to their pecuniary support, to make objects of mere show an essential portion of their exhibitions—in some instances they have perhaps become too much for show, even at the expense of what must always form a substantial basis for support, namely, lasting utility. So long however as the life-blood of agricultural societies consists in the fees paid by the multitude, we cannot object to the attraction created by the expected presence of Presidents and Governors, Politicians and Generals, for these will commonly bring together more of the farming community, than the finest animals, implements, and products in the world; and this will always be the case so long as farmers prefer political papers to agricultural journals. Our western friends have found another element of attraction, by displaying feats of horsewomanship through the stimulus of prizes, and so great has been the eagerness to see these brilliant exploits of female equestrians, that twenty thousand persons were drawn together at a single county fair in Ohio the past autumn.

Such modes of attraction as we have mentioned, we believe may be admitted even by so grave and dignified an association as an AGRICULTURAL SOCIETY; but further than these we would not go, nor recommend the frivolity and idle amusements which have in a very few instances been connected with fairs, turning night into day, and setting a very bad example to farmers of steady habits,—who find no little trouble, in this flashy age, in retaining the affections of their sons and daughters for the quiet and real pleasures of home, instead of the gilded follies and hollow enjoyments commonly known under the name of "pleasure." Every thing connected with rural advancement, should contribute to a healthful and not to a vitiated taste, and when associations or periodicals cease to exercise such a salutary influence, it may be strongly questioned whether their best act would not be to cease to exist.

But enough of this. The principal object of our present remarks is to suggest a change in relation to the common mode of offering premiums. Agricultural societies, from their earliest existence, have traveled on nearly in one unvarying track. Premiums,—to stimulate the exhibition of rare objects; and the exhibition of rare objects that the people may be induced to come and see them. The premium lists of all are essentially the same. The best horses, the best cattle, the best sheep, and the best swine; the most promising looking plow, wheat-drill, threshing machine, and reaper; the largest collection of showy fruit, and the most laboriously wrought bedquilt and sewed flower-work. Now, some of these objects are most excellent; the introduction of fine animals, for example, to the myriads of farmers who would never have seen them but at such places, nor known of their existence, has conferred a benefit on the whole country that can be estimated only by millions. A similar influence has been exerted by the introduction of improved implements, and by other improvements.

A great field lies nearly unexplored, and farmers are thirsting for information, which these societies have as yet failed to furnish. We allude more particularly to systematic knowledge relative to cultivation, feeding, &c., which is only to be learned by experiment, carefully, scientifically and rationally conducted. The organization and support of agricultural societies require that a large portion of the present system of premiums be retained; but experiments, such as we have mentioned, have been almost wholly overlooked. A few premiums have been offered for such experiments, but they have brought out still fewer results. Premiums are an insufficient stimulus for their trial. Most men seem to have taken it for granted, without ever questioning the opinion, that premiume must be

the great main-spring of all associated action. They will not answer for well conducted farm experiments, for there are very few that know how to perform them properly, that will do so with a mere *chance* of being paid for their services. Societies, if they expect to be useful, must mark out a series of experiments, and there are a few competent persons who would undertake them, from the interest they feel, at even less than the cost of carrying them out accurately in practice, when a *risk* would be no inducement. We do not see why agricultural societies should not aim to be useful in this way, as well as by the more indirect benefits of public shows.

It is scarcely necessary for us to mention instances; yet a few may seem to make our meaning plainer. The societies of this state have paid many thousand dollars for the finest looking cattle and horses. One-twentieth part of the fifty thousand dollars thus paid, would, if judiciously expended, have shown our farmers the comparative advantages of cut and uncut fodder; of feeding regularly and irregularly; of shelter and exposure; the nutritive value of hay and corn-stalks, of wheat, oat, and rye straw, of cooked and uncooked food; the fattening properties of various grains, and of beets, turneps, rutabagas, parsnips and carrots; and would have shown which of the various breeds of cattle would furnish a hundred pounds of beef with the smallest amount of food; or which of the various competing kinds of swine would fill a pork barrel the cheapest. Now, we candidly ask, Would not a knowledge of all these facts be quite as useful to the great community of farmers, as the mere sight of the handsomest animals at our state and county fairs? Will societies continue the same tread-mill track as formerly?

Again—thousands have been given for large crops; the knowledge of which has had a stimulating effect on other cultivators. But the manure which produced them may have cost a large sum, and may be still too scarce an article to treat a whole farm with. Experiments therefore, showing the most economical mode of composting, applying and intermixing manures with the soil, would be of universal benefit. Indisputable facts, pointing out the best crop for green manure, and its value as compared with compost, and with other green crops, would be of the highest benefit. So also would a general system of experiments with various sorts of rotations, for determining the most valuable for the permanent benefit of the land, as well as for immediate profit. Again,—premiums are offered year after year, for the best twenty apples, and year after year the public see the twenty sorts set upon the tables for this standing reward. Infinitely more valuable to the community, would be the knowledge of the most productive sorts for market or for stock-feeding, proved so by actual experiment; or the knowledge between the product of orchards subjected to the best culture and treatment, when compared to those under ordinary neglect.

The great leading advantage of the knowledge obtained as we propose, over that imparted by ordinary fairs, is this: Fairs teach only actual spectators, and for a single occasion: that which we propose, may be published and laid before millions, and may be perpetuated for ages to come; and a single fact, well understood, may effect an annual saving of untold thousands when adopted by the great multitude of the farming community.

Answers to Inquiries.

MESSRS. EDITORS—I take the liberty of making the following inquiries:

1. What is the best feed for milch cows in winter—the object is to sell milk?(*a*)

2. Can calves be raised partly on oil cake, the best method of using it, where is it to be had, and the cost?(*b*)

3. What would be the value of a two years old bull in the spring, three-fourths Ayrshire and one-fourth Durham, from imported stock, *handsome*, weighing over 1,000 lbs.?(*c*)

4. What is the price of draining tile? Can they be purchased in New-York?(*d*)

5. Are oyster shells valuable as a manure—if so, for what crop, and how are they to be used?(*e*)

My only excuse for thus troubling you is, that I am a reader of your valuable publication. R. WATSON.
ST. STEPHEN, NEW-BRUNSWICK, Dec. 16, 1853.

(*a*) Avoid feeding dry substances *only*, and give a full proportion of succulent food, so as to imitate the nature of the succulent food of spring and summer, at which time milk is most abundant. Beets, carrots, and bran largely mixed with water, and warm quarters, will facilitate the production of milk. Milk-sellers inure their cows to the use of large quantities of "slop," consisting of water with small portions of meal, bran, &c., but when carried to excess the milk is thin in quality.

(*b*) We are not acquainted with the effects of oil-cake on calves. It is little used in this country. In Europe it is largely employed in fattening cattle in connexion with other food, and although very costly, it is found profitable from its valuable effects. American oil-cake is bought in England for this purpose. It must be crushed or ground before fed to animals. Our impression is that the price is about forty-five dollars per ton in New-York.

(*c*) The value cannot be given without seeing the animal—fine, full blooded animals, command good prices, for breeding. A mixture would greatly lessen the animal's value for this purpose, so long as full-bred animals may be had.

(*d*) Draining tile is made at Albany, Waterloo, and Palmyra, N. Y., and perhaps at other places. The prices vary with the size, from $10 to $18 per 1,000.

(*e*) Oyster shells, burned or pulverized, form a good manure wherever lime is beneficial. They are not so valuable as bones, being chiefly carbonate of lime. Crushed or ground, they are more fertilizing in their effects than common lime, on account of the animal matter they contain. Burned, they are nearly similar to pure stone lime. Experience is the best test of their value, under the varying circumstances of different localities.

The Michigan Plow.

Are these of such dimensions and construction that will do good work and not cut deeper than the common plow, say from five to eight inches, and for that depth would they be preferable to the common plow on smooth land free from stone; and where can they be had, and what is the price? Can they be drawn at that depth easily with three good horses? A SUBSCRIBER. *Easton, N. Y., Dec.*, 1853.

A principal object of the Michigan plow, is cutting *deeper* than with ordinary plows, burying the top sod under the mellower portion thrown up from below. If set to run only five inches deep, the forward mouldboard would not cut at all and would only encumber the implement. This plow will not work well at a less depth than eight inches. With this depth, three horses would draw the smaller size without difficulty. We believe it is kept for sale at the principal agricultural warehouses, at prices varying from nine to twelve dollars.

Destroying Sweet Flag.

Can you inform me the best way to kill sweet flag from low ground, as there is a good deal of it here on the best land. P. M. *Hopkinton, N. H.*

The roots of the sweet flag run near the surface, from which numerous fibres extend downwards; but these have no buds or eyes, and will throw up nothing if deprived of the surface growth. The best way to destroy the plant, therefore, where the ground is hard enough, or sufficiently drained to bear a team, is to get a *paring plow*, and run it just low enough to cut off the fibrous roots, and separate them from the surface. The sod is then cut up into blocks, drawn off, and may be used with much advantage in the compost heap. If the ground is too soft for plowing, a sharp spade will rapidly remove the surface roots, and completely extirpate the plant.

Plowing in Weeds, &c.

Will you do me the favor to state in your journal the best plow for turning in effectually fallow land grown up thickly in high grass and weeds, and crops of field Peas sown broadcast. Also the best method of preventing the growth of shoots from the trunks of fruit trees, near the ground. A SUBSCRIBER.

To plow in tall grass, weeds, or any other green crop, any good plow sold at the agricultural warehouses "for laying flat furrows" will be found best. There are so many patents or manufacturers in various localities, that it would be hard to name the best, but our opinion is that none better will be found than those of Ruggles, Nourse and Mason, of Boston and Worcester. In order to press the growth flat, just as the mouldboard begins to turn the sod, provide a stiff iron rod, to pass through a hole in the beam just forward of the coulter, and extending downwards and backwards, parallel to the mouldboard, until about one foot to the right of the beam, and just sweeping the surface of the ground. This serves to bend over the tall vegetable growth, *from* the mouldboard, so that when the sod is thrown over, the growth is all turned under, and no portion will project from the upper edge of the sod. A round iron rod, costing not over twenty-five cents, may be easily bent to the proper shape, and inserted into an auger hole bored through the beam, and fastened by iron wedges. In the absence of any contrivance of this sort, or on a very uneven surface, harrowing down the weeds in the direction the plow is to run, will much assist the operation.

The only way to prevent the growth of the shoots spoken of, is to cut or pull them off as soon as they appear. If cut, they must be pared off *even with the surface*. If a few months old, they may be easily pulled off, by holding the ends with the hand, and then pressing down on them near the trunk of the tree with the foot.

Theories and Experience.

L. TUCKER, ESQ.—I feel much pleasure in bearing witness to the great ability with which the Country Gentleman is conducted, and that it comes up to my conceptions of what an Agricultural paper should be, by practical instruction as to the best methods of farming, and literary and miscellaneous matter for the improvement of the mind; and most happy am I to see you steer clear, so skillfully, of the conceits, notions, and theories which most agricultural editors administer ad nauseum. Theory may build an apparently impregnable structure, but when unsustained by experiment, adaptedness and fitness to our wants, it falls to pieces like the baseless fabric of a vision. How many such have been hatched in the heated brains of chemists, philosophers and fancy farmers, and our whole agricultural community denounced as a set of blockheads because they could not be induced to eschew all their hard bought experience and hail with joy the advent of some glorious discovery which was about to place us soon again within the walls of Eden. The transplanting of European ideas and practices, without reference to difference in soil, climate and circumstances, is a fearful source of error of this description. In most cases the instinctive perceptions of our farmers, like the test-paper of the chemist, is more reliable in practical questions than the most carefully educed proposition of the man of science. Of these some maintain that humus is insoluble, and consequently innutritious; others that *all* vegetable substances should be converted into the state of humus before being applied; some that all manures should be *thoroughly* fermented; others that they should be fermented at the roots of the growing crop; some that all vegetable and animal manures are worthless for purposes of nutrition; others that the atmosphere is the great and only store-house of vegetable life; some that mineral applications are merely stimulants, tending towards the eventual exhaustion of the elements of fertility; others that mineral substances enter into and constitute a part of the vegetable as truly and essentially as carbon itself does As the lawyers say, the books are full to the same effect. The farmer, in the midst of these discrepancies of the doctors, winks his eye, and says, "possibly you are all right under certain circumstances, and until you settle the question among yourselves, I will practice upon the results of

my scientific investigations, viz. that all animal and vegetable and mineral applications, fermented and unfermented, improve my crops, and after that the atmosphere—aye, and the moon and the planets, may have their chance at them afterwards."

I am far from wishing to throw philosophy and chemistry to the dogs; but would only inculcate a little more modesty in the setting forth of their claims. After science has applied her tests, let practice and experience apply theirs, and thus may the two branches walk lovingly side by side, like two gracious, good-humored Durhams beneath the yoke, pulling together for the public good. Unfortunately for the advance of true science, some of the magi have assumed the philosophic look and title—mounted the knowing specks upon their nasal organ—donned the broad-brimmed beaver of simplicity, indued themselves with the ample vesture of antique mysticism, and intimate confidentially (through their advertisements) that they and only they have discovered the great catholicon; and thus delude and disgust those intelligent and enterprising minds that would apply the results of science to practical agriculture. In all the mechanical branches, the results of science are fixed, absolute and certain; they are demonstrable—like causes will produce like results—but in reference to agriculture the case is different. The vital principle of plants has laws peculiarly its own, which have as yet in a great measure eluded the grasp of science. As, for instance, who of the learned ones can give us a satisfactory explanation of the effects produced on vegetation by a slight sprinkling of gypsum, or an application of lime, ashes, guano, phosphates, &c. They can tell us of the effects, but can they give us the rationale? Can they even agree among themselves as touching that great and important question, viz. in what form are the above, and all other nutritious substances, animal and vegetable, introduced into the organs of plants? By mechanical or by chemical solution? or whence and by what organs do they obtain their gaseous constituents from the air—through their leaves or by their roots, from the atmospheric air mixed with the earth, or do they decompose the water absorbed through the roots, as well as the substances which the water has introduced into them in a soluble state? I know the doctors will say the rationale of these cases is very simple—but then each one has his theory, and no two can agree. There has been entirely too much theoretical "chemistry as applied to agriculture," but I have reason to hope "there is a better time coming." I see that Professor JOHNSTON, in his valuable work, has rigidly returned to the old Baconian system of making experiments, recording facts, and from these facts deducing general laws. By carefully conducted experiments upon the plants and crops themselves, he asks nature herself what her laws are, and he modestly records her answers in form of results.

It is high time another popular illusion were dispelled. In all the profound dissertations upon the noble art of farming, and in the oratorical displays before agricultural societies, and proposed systems for agricultural schools, the great and important requisite for the successful farmer is said to be a knowledge of chemistry. This is all wrong. Our cause is only damaged by vain pretensions and assumptions, erroneous in fact and in principle. It is an accomplishment, and a great satisfaction to know what is known in reference to the laws of chemical affinity and combination. All persons who can, should make themselves acquainted with this most interesting branch of knowledge, in order to widen his scope of vision, but that he should be induced to enter into the mysteries of this science with a *view* to greater success in his calling, is grossly erroneous. The farmer's business is with results; that of the chemist is with the process; and with the latter may as well be left both process and result, so far as *practice* is concerned, until something more definite is arrived at. I might ask the question, what great or important discovery has chemistry brought to the aid of the practical farmer? but for fear the question may be deemed malicious or impertinent, I withdraw it.

G. E. H. *Near Brownsville, Pa.*

Cultivation of Indian Corn.

MALONE, December 21, 1853.

L. TUCKER, Esq:—Being an attentive and constant reader of your inestimably valuable paper, I have of late become much interested in the remarks and communications upon a variety of subjects, but more especially upon raising corn, salting hay, and the dairy business; and since you are in the practice of giving communications a corner of your paper, and as I conceive it to be of the most beneficial consequence to practical agriculturists, to have the benefit of the experience of the fraternity, I take the liberty of forwarding the following facts to you, hoping you will make such use of them as circumstances warrant.

Raising corn has always been, and still continues to be, one of the most extensive operations of the agriculturists of this country. We perceive by examining into the circumstances of the case, that there is an astonishing amount of capital invested in this one branch of farming, and that the common profits are exceedingly small, compared with favored fields, in favorable localities. This is the subject which appears to be before the public, and its remedy requires the consideration of practical farmers.

There are several causes which directly or indirectly tend to produce this common effect, among which may be enumerated soil, tillage, seed, &c. Large crops are raised on all kinds of land in favorable seasons; yet the risk is so great that experienced farmers seldom trust their capital in this lottery; but rather take land of a light, warm nature, that is easily tilled, and can be made productive by manuring, and is sure with proper care to produce a remunerating harvest. I consider a sand or gravely loam most suitable and profitable, though most soils can, by a thorough draining and subsoiling, be made to produce good crops of corn.

After many experiments I have adopted the following mode of operating. Take land that has been in

sward two years; break with flat furrow as deep as convenient, late in autumn before the severe frosts injure the vegetable matter; let it settle till planting season and then harrow until mellow. Be sure to harrow enough, for there is no fear of working the soil too much, and few think that one day's work in spring will save four at hoeing time. Mark both ways with a marker which will make four marks three and a half feet apart; be careful to go straight, so that you can do your hoeing with a cultivator. Plant in intersections, after putting one spoonful of gypsum in each hill. Plant good seed, and no more than you wish to grow. This will save a vast amount of bending while hoeing. At first hoeing, put a small handful of ashes on each hill; hoe two or three times as circumstances require, and you are sure of a good growth. I find that the plaster increases the product fifty per cent., or more, which is a better dividend than all the railroads, banks, manufacturing or mining companies in the Union pay.

I harvest by cutting near the ground, and putting in small stooks before fully ripe, where it is left until cured. The stalks, if harvested in this manner, will half pay the expense of the crop; and are eagerly devoured by most kinds of stock. I find them to be the best feed ever used for cows. Butter made while feeding them, is always of a beautiful color, and an excellent flavor.

Under this treatment, I have always succeeded in obtaining a remunerating harvest, while some of my neighbors often do not get corn enough to pay expenses; and when they are informed of the beneficial results arising from the use of plaster and ashes, they say they cannot afford to pay for ground stone to throw away, and that they do not believe in book farming. Yours truly, FRANK PARLIN.

Self-Sharpening Yankee Feed Cutter.

EDITORS COUNTRY GENTLEMAN—In number 49 of your paper, you say, in answer to a correspondent, that "a cheap and perfect straw cutter has not yet been made." Will you allow me to present to your notice a machine of that kind, which, although it may not be quite perfect, yet I am convinced, from thorough trial, is as near perfection as any cutter ever made. It works on an entirely different principle, so far as I can learn, from any now in use, and is vastly superior in simplicity, economy, ease of working, and—what will be a great recommendation to most farmers—ease of keeping in repair. The chief point of difference is this: it has only one knife, and that is stationary. It is placed horizontally at the end of the feeding-box; and the cutting is performed by two sets of spiral flanges, above and below the knife, drawing the hay, straw or cornstalks up to and against the knife. And here is an important difference. Instead of cutting *perpendicularly* to the grain of the straw (so to speak) as the common hide-roller cutters do, the flanges being spiral, the cut is made with a *shearing* motion, thus cutting with much greater ease. It is known, I believe, as "The Self-Sharpening Yankee Feed Cutter," from its tendency to keep the knife sharp all the time; the effect being the same as in honing a razor, edge forwards, the flanges doing here what the hone does in the case of a razor. I believe quite a number of different sizes are manufactured, of all prices, from $6 up to $17, and to cut from half an inch, upwards. The larger sizes, being very powerful machines, are peculiarly adapted to the cutting of cornstalks, (which will yet be the farmer's great dependance for winter fodder,) being cut and steamed, when they are very nutritious. From the peculiar position of the knife, the stalks are not only cut into small pieces, but are also *split*. I have never found any other machine which will at all compete with this in all the particulars above mentioned. It was patented by A. S. MACOMBER, and is now manufactured considerably in Massachusetts and Connecticut, a joint stock company having purchased the right for the latter State, and the counties of New-York along the Hudson river. I have been informed by a friend who owns one of the larger sizes, that he has cut up corn on the ear with it, so that it could be easily ground without cracking. My own machine, though of rather small size, will easily and rapidly cut up middling sized stalks, and I am so well pleased with it that I shall not use any other kind hereafter. Another great advantage of this kind is, that the knife need never be taken from its place to be ground. By simply putting some flour of emery and oil on the edge of the flanges and turning them backwards, the knife is ground up as good as new. I hope you will excuse this long letter; but if I can benefit my brother farmers by bringing to their notice any labor-saving machine like this, I shall be abundantly satisfied. A SUBSCRIBER WHO HAS TRIED. *Birmingham, Conn.*

Information Wanted.

MESSRS. EDITORS—In the December number of the Cultivator, page 168, I find a very interesting and satisfactory account of an experiment in the application of different kinds of manure to the raising of Indian corn, by H. H. EASTMAN, Marshall, Oneida co., N. Y., and would like, through you, or some of your numerous readers, to learn further upon the same and similar subjects. And, first, can Indian corn be raised with any of the manures named in the above experiment, (barnyard manure excepted,) with success, and at the *same time so improve the soil as to prepare it for oats, grass, &c?* If so, *which kinds, what quantities of each, and how applied?*

2d. Can any of the manures alluded to above be used with success on pastures or mowings? and if so, please name the kinds, the quantity needed, the season most favorable for the application, and how often is it necessary to repeat the top-dressing?

3d. Can either kind of the manures alluded to, be profitably used as a top-dressing on reclaimed swamp or muck lands now in mowing? If any can be so used, which kinds, and in what quantities, and at what season of the year?

In communicating through the Cultivator the experience of yourself, or some of your readers, on the above points, you will doubtless gratify many, and much oblige one who wishes to convert the waste and barren into fruitful fields. S. DEMING. *Farmington, Ct., Dec.*, 1853.

We hope some of our readers who have experience in the matter, will reply to the above inquiries.

Fall and Winter Plowing.

It seems not a little surprising, that there should be so many farmers, in this age of intelligence, who will, so strenuously, insist upon the inexpediency of fall or winter plowing. It would seem, that after a few successful experiments in fall plowing, every farmer would be not only ready, but *in haste*, to avail himself of the great benefits of plowing deep in the fall. But we find a great number, who have come, deliberately, to the conclusion, that they do not get as good crops from those fields which were plowed in the fall as from those which are plowed only in the spring. Many contend that when land is plowed in the fall, (especially sward land,) the crop, especially if it be corn, will be very much injured, the ensuing year, by the worms. Others say that they have experimented in fall plowing, and have become satisfied that they do not get as good crops as from spring plowing only

We grant, in a measure, the truthfulness of both these objections; but at the same time we would advocate late fall plowing, except when the soil is very sandy, or a sandy loam. It is true that there are soils which it would not be well to plow in the fall, on account of their disposition to leech. After a farmer finds, by a few fair experiments, on such soils, that he obtains greater crops from spring plowing *only*, than from fall or winter plowing, the practice should be abandoned at once On very porous, light, sandy soils, on gravelly loams, and all other kinds of soil which are not accustomed to bake, and to become lumpy, the rains and snow and frosts of winter have no ameliorating effect; because, if we increase their porosity and friability, it is done at the hazard of their fertility.

The grand object to be attained in fall or winter plowing is, to increase the friability and porosity of soils, and to destroy the worms. If the soil is already very porous and friable, there is too much reason for apprehending that much of the elements of fertility will be washed out by drenching rains; and thus the soil would be impoverished rather than made more fertile. But, generally speaking, all soils that are apt to be lumpy when they are plowed, (it is taken for granted that there is not an excess of moisture,) and inclined to bake in spring and summer, clayey loams, calcareous soils, and thin soils of muck lying on a subsoil of clayey loam and gravelly clay, will be greatly benefited by being turned up to the influence of the rains and frosts of winter. If a soil has been thoroughly drained, but is very wet from heavy rains, we need entertain no fears that fall plowing will injure it; because, should it be so wet as to run together like mortar, the rains and frosts will destroy this cohesion. But if a soil is not thoroughly drained, we need expect no benefit to result from plowing such soils in the fall or winter; for if we expect it, we will surely be disappointed. I will tell why. A soil that is thoroughly saturated with water will expand but little if any more than the same bulk of water when it congeals; and when it thaws much of the finer particles run together like lime and sand and loam when they are made into mortar, holding in this mass the elements of fertility so firmly that as food for plants, they are in an unavailable state. But when a soil that is only moistened, freezes, its bulk is greatly increased, and the cohesion of every part is affected; and when it thaws, there being not water enough to allow the different particles to run or settle together, it remains light and friable like honey-comb; and each successive freezing increases its porosity and breaks up this coarseness of particles.

In order to illustrate this subject, let any one take some unslacked lime and wet it just enough to make it slack well; and it will afford a beautiful example of the effect of rain and frost on a dry soil that has been plowed in the winter. Now take another quantity of lime and continue to pour on water, more than is necessary to slack it; and after it is slacked, stir it with a stick and let it settle. Now let the water evaporate, and let the lime freeze and thaw, and we are furnished with a very correct idea of the effect which fall or winter plowing has on a soil that has an excess of moisture.

When a soil is plowed early in autumn, if there are many worms in it there is danger that they will seriously injure the crop the following season. But if the plowing is deferred until late in autumn, or even until winter, a great majority of them will perish after being routed from their winter quarters. And, furthermore, when sward land is plowed early in autumn the grass roots, on which the worms would have fed while the crop is growing, will have decayed long before the crop on the following season is out of danger from the worms. But if land be plowed late in autumn or winter, the grass roots undergo but little change, and will furnish food for worms as well as if the soil had been plowed in the spring. I have known many crops materially injured by the worms in consequence of plowing too early in autumn. A few years since a neighbor cut a ditch through one of his pastures in the month of September, and on the following season plowed in the spring and planted with corn. Along this ditch, a strip about six or eight feet wide was almost entirely destroyed by worms, while the rest of the field yielded a bountiful crop.

Another objection might be advanced against plowing in early autumn, which seems rather plausible, especially if it be any kind of stubble, and not sward. Heavy rains and sometimes snow falls abundantly, which settle and pack the soil so closely together that freezing and thawing has little if any more effect on it than if it had not been plowed. But had the plowing been deferred until these heavy rains had fallen, the soil would present a much larger surface for the frost to act upon.

Another very important consideration is, *the manner in which the plowing is performed.*

Every good plowman knows that there are three kinds of plowing, viz: *round plowing*, *flat plowing*, *and lap plowing*. (I do not intend to speak of the different modes of turning the furrow in this place, but simply to show the different effect of different kinds of plowing in the fall or winter.) Sward land, on undulating and hilly regions, whatever the soil may be, should not be plowed in autumn or winter with a lap furrow. On level land it will do better; but even there the lap furrow is wholly objectionable. By plowing with a lap furrow where there is a stiff sod, the soil is laid in a position to carry off effectually all the elements of fertility which find their way into the subterranean drains formed by lapping one furrow on another when the land is hilly; and when the land is level too much of the fertilizing substance in the soil is apt to leech into the sub-soil, especially if it be a leechy soil. It is far more advisable to turn flat furrows in fall and winter plowing than to lap them. But flat plowing is decidedly objectionable, because the soil is not sufficiently pulverized. Generally speaking, when furrows are turned flat, the cohesion of the soil is not half broken up; and although the furrow may appear to be broken up, as it turns on the plow, still, all the cracks will close, after the furrow slice leaves the plow; and the soil will be but little better, so far as its porosity is concerned, than if it had not been plowed. Simply inverting the soil to the depth of five or six inches, in one unbroken mass, as we would turn over a plank, thinking that the rains and frost will render it sufficiently porous and friable, is a wrong idea. The plow must not only turn the furrow upside down, but it should destroy entirely the square form and unbroken

compactness of the furrow slice. Then the rain and frost will be able to effect its pulverization in the most desirable and perfect manner. By plowing with a plow that turns a round or convex furrow slice, the ground is prepared for the rain and frost to perform their office. By plowing with lap or flat furrows, we leave a task for the frost and rain which they are unable to perform, which the plow should have done, and then wonder why the result should be so different from what we anticipated. By turning the furrow with a plow that rolls a thin sod together and encircles it completely with well pulverized super soil and sub-soil on all sides to the depth of three or four inches, the soil is prepared in the most perfect manner possible for rain and frost to perform their work, and to preclude the risk of the elements of fertility being washed away by drenching rains.

When sod ground is plowed in the fall or winter we do not expect to plow it again in the spring, and therefore, as a security against worms, the latter part of November, or in December, January or February, if the ground is not frozen, is as good a time as autumn. In December, 1852, I plowed a field for corn, with round furrow slice, and to the depth of ten to fourteen inches; and although snow covered the ground of most of it to the depth of three and four inches while I was plowing, the operation was so well performed that a friend of mine, one week after the work was done, thought it appeared more like a summer fallow that had just been cross-plowed than like sod. Although the worms were numerous in the soil, thousands were seen perished in the cold. Their winter retreat was broken up, and I lost but a few hills of corn by them. S. Edwards Todd. *Lake Ridge, Tompkins co., N. Y.*

Raising Poultry.

Editors Co. Gentleman:—As raising poultry is becoming a matter of considerable interest, I send you a few remarks on my experience, and some calculations which I have made, thinking they might be interesting to those who like myself have had an attack of the *chicken fever*.

I have often heard it said that it was more profitable to *sell eggs* than to raise chickens. I did not think so; but to prove the matter, I kept an account the past season of every egg set and hatched. The following is the result:

Eggs set	704
Chickens hatched	457
do. raised	169

I consider that I had very "bad luck" in raising so few. It was not entirely owing to bad management, although I now see where I made several mistakes. I had so many difficulties to contend with—the hawks, crows, hogs, rats, &c—each and all took a large share, and yet had the eggs been sold the average price would not have been more than 14 cents per doz., which would have amounted to $8,21 cts, whereas I have sold 88 chickens for 30 dollars—used in the family and given away 45, and have 36 left.

No account was kept of the feed because those used in the family, would considerably more than have paid for that, had the "almighty dollar" been the entire object. Chickens pick up a great deal that would otherwise be wasted on a farm, and any one living in the country knows what a satisfaction it is to have plenty of chickens and eggs of one's own raising. I intend keeping half the number of hens and a like account the present season, hoping it may show a better result. A Reader. *Maryland, December*, 1853.

Composition Roofs.

In answer to an inquiry of a correspondent, relative to this kind of roof, the best information we can give is furnished by the Prairie Farmer His mode of roofing, it appears, has been extensively used in some of the western cities, and after a trial of several years, appears to possess every element of durability. These roofs are cheaper than tin-plate, and rather dearer than good shingles, being $5 to $6 per 100 feet.

The Prairie Farmer thinks this roofing should be applied only by those who make it a business, as there are several requisites for the permanent success, not at the command of every one. A thick, coarse paper, made of wollen rags, expressly for this purpose, is saturated with coal tar, or with turpentine, and is then made to cover the boards of the roof, which are laid on as for common shingling. Some operators fasten the paper on various parts of the roof, and others only at the edges, the latter alledging that the contraction and expansion of the boards, in dry and damp weather, injures after a time the texture of the paper, if it is made fast all over. When the paper is properly secured, a composition made of coal tar, thickened as is supposed by rosin or pitch (the operators feigning secrecy) is then applied hot with a swab, immediately after which, sifted sand is spread over as thickly as the composition will hold. This is rolled, and another application of the composition made, followed by a coating of gravel. Some operators apply but one coat of composition, and a coat of gravel only. *Steep* roofs cannot be covered in this way—one foot in four or five being barely sufficient to retain the melted composition.

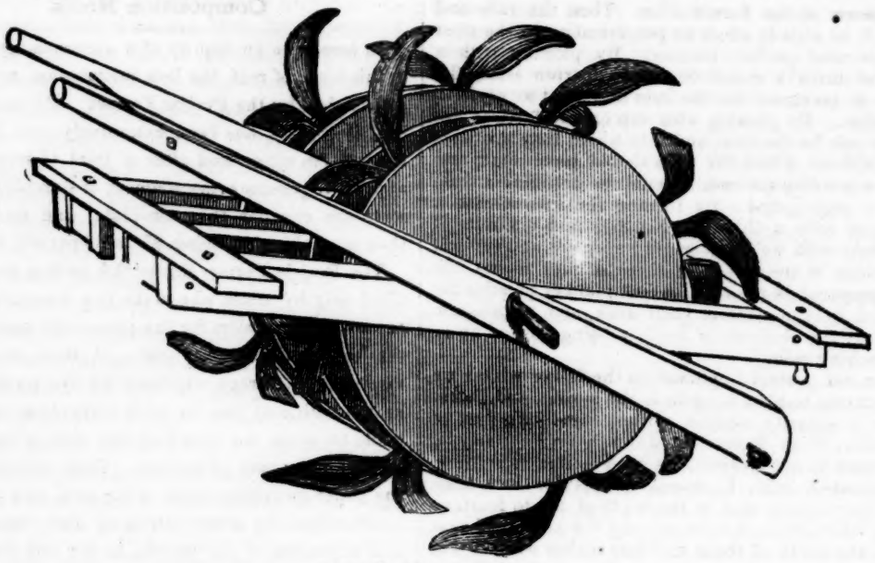
Lime on Corn.

I have just concluded an experiment with lime on a field of corn, which may be worthy of notice. As the corn was coming up, I applied about half a pint of slaked lime to each hill, with the exception of four rows near the middle of the field, which were left, that I might see whether or no liming in the hill was beneficial to the crop. The after treatment was the same during the season.

Harvested separately the four rows unlimed, and also adjoining them four that were limed, (soil and situation being precisely the same,) and the result was an increase of a little over one-eighth in the amount of corn in favor of that which was limed. R. F. Bingham. *Ellsworth, Mahoning co., Ohio.*

P. S. To prevent crows and black birds pulling up corn: Keep a good supply of it scattered on the ground for them to eat, as they won't work for a living if they can get it without. I have tried it with success for several years.

"Old Colony Sweet Corn."—I tried the "Old Colony sweet corn" last summer. The experiment was a fair one, and made under the most favorable circumstances. It is, in my opinion, far inferior both in quantity and quality to the common sugar corn cultivated in this vicinity. If it does not succeed better on another trial, I shall consider it a *hoax*. T. G. *Delaware co., Pa.*



GIBBS' ROTARY SPADE.

Gibbs' Rotary Spade.

This implement is designed to serve the same purpose as Samuelson's Digging Machine, and is more simple in its construction. The Rotary Spade is the invention of Mr. L. H. Gibbs, of Washington, D. C, and is now exhibiting at the Crystal Palace. It is composed of two cast-iron circular plates, about two inches apart, and working between them are eight stout, narrow wrought-iron teeth, curved somewhat like the old-fashioned cultivator teeth. These teeth are hung, and have a trigger to throw them out as the machine revolves. A yoke of oxen are sufficient to draw the machine, and as it progresses each tooth in succession is pressed into the earth by the weight of the machine, and, when the weight falls upon the trigger, the tooth is thrown out with its load of earth, which is thus mixed and pulverized as thoroughly as if forked over. The two wheels cut a furrow about two feet wide and nine inches deep, which can be increased to any desired width and depth. It requires no holding, yet is provided with handles so fixed as to throw the machine out of the ground.

The cut which we take from the Peoples' Journal, is an accurate representation of the implement. Now that the importance of fine tilth is so generally understood, the advantage of an implement of this sort will be readily seen. Where land has been plowed in the fall, preparatory to spring sowing or planting, the Rotary Spade passed over the ground in the spring would put the soil in fine condition for a crop.

Valparaiso Squash.

MESSRS. EDITORS:—I raised a notable quantity of Valparaiso Squash, last season, on a small piece of ground—I should think half a ton's weight from eight or ten hills. They grow to a large size, as the specimens on exhibition at the different County and State Fairs abundantly prove. My hogs fed upon them with great avidity, and as they are obviously a more nutritious kind of food for stock than pumpkins, I have been induced to believe they might be substituted for the latter in field cultivation, to advantage. With suitable care they must be very much more productive, and of richer flavor, as they are without doubt. It seems to me that Squashes are to be preferred to the old Conneticut staple. For culinary purposes there is no comparision between the two. I do not mean that Squashes can be planted among corn, where pumpkins never should be if there is a good stand; doubtless it would be necessary to give them full and exclusive possesion. I think I shall make a trial next year of a field crop of this species of Squash, and may communicate the result, if any of your readers should feel interested therein. V. W. *Dec.*, 1853.

Shell Marl, &c.

What is the comparative value of shell marl as a fertilizer after having been exposed to the air and frost one season, in comparison with the same bulk of ashes, lime, muck, poudrette or super-phosphate of lime, or compost?

Where can Woodbury's corn and plaster drill planter be obtained, and what is the price?

Is sulphate of soda (glauber salts) of any practical utility, and economical, mixed with ashes as a fertilzer? An answer to these questions will much oblige H. S. *Felchville, Vermont.*

Shell marl is about the same in character and effect as lime, where the two are in a condition to be equally intermixed with the soil. Exposure to the frost of a winter does not effect shell marl, except it may in some instances render the marl more friable, and consequently better for even application and thorough intermixture. It is difficult to compare its value to that of other manure, as without other fertilizers, it would be of no value, and its effect would not be felt on soils already well supplied with lime. On the other hand in extreme caes, and where circumstances have been most favorable, it has doubled the product of the land. The best

way to ascertain its value, is to try a few experiments on a moderate scale.

Nearly the same remarks will apply to ashes, muck, and superphosphate of lime. Ashes, however, containing *all* the *earthy* parts of plants, are more generally beneficial than earthy manures of more limited composition, but lacking ammonia they scarcely ever produce any striking effect. Muck is very useful on such soils as are not well supplied with vegetable matter, but is of no value on those that are. Under favorable circumstances, which are best determined by experiment, superphosphate of lime produces very powerful effects, many times greater than any of the other manures mentioned. Glauber salt has never been tried extensively; in a few instances it has been found beneficial, but far less so than most other fertilizers, and sometimes injurious. *As a general rule, all these single fertilizers are more useful and more certain when mixed with common manure*; because plants have *many wants*, and no one substance alone can supply them; but ordinary manure, consisting of several ingredients, and more especially ammonia, these substances act in concert and they assist each other.

Poudrette and compost are complete manures in themselves, and of course their value must depend on the amount of peat, earth, &c., which enter into their composition. The best poudrette is several times stronger than ordinary compost, but the poudrette of commerce is greatly diversified in its composition, so that it is hard to say without actual trial or analysis, what its real value may be.

We do not know where Woodbury's drill can be had.

Raising and Harvesting Timothy, &c.

Messrs. Editors—In your paper I often read questions such as these—best time to put in timothy, how to put it in, how much seed to the acre, when to cut it, and how to cure—1st. Any time between the middle of September and the middle of October. I have raised good meadow by sowing the latter part of November. 2d. I never sow less than half a bushel of seed to the acre. 3d. I cut when the blossom is about to fall. 4th. What grass is cut in the morning, I turn over after dinner, provided the weather is fine with plenty of sun; if not I let it lay until the next morning or longer if the weather is not suitable. I will tell you how I do, if the weather is good. The next morning when the dew is off, I rake up into winrows that which was turned over the day before; after dinner I put it into cocks, say from 150 to 200 lbs in a cock; the next morning I open them and after dinner I stack it, or haul it in the barn.

I put in grass seed after oats or wheat; never sow any thing with it, I have found out to my own satisfaction, that it does better put in by itself. I sow no other kind of seed but timothy, as it brings the best price here. I plow my ground but once, 6 to 7 inches deep; harrow it once or twice according as it needs it, sow my grass seed and roll it in.

I should add that I generally cut a first rate crop of grass the first season after the seed is sown, from 1¼ to 2 tons to the acre. I then let it lay 3 years and plow it up—put the land in with what you please; I put in corn the first year, then oats, and then grass seed again.

Farm Roller—How Made.—By the bye I will tell you how I made my roller. In the first place I take a piece of scantling, 4 x 4, 9 feet long—I use yellow pine—then I make 3 wheels 3 feet 2 inches in diameter out of 2 inch plank, two of them being doubled over on each end of the shaft I spoke of above, which shaft protrudes past the wheels at each end 3 inches—the 3 inches made round and a band drove on—2 iron gudgeons made a foot long, square 1¼ iron, 2 inches made round for the frame to set on. The single wheel is put in the centre of the shaft. Through the wheels I make my mortices square. Now for the covering of the wheels. I take 2 inch stuff 4 inches wide, and nail it on strongly; then over each end I put a good heavy iron hoop, 2 inches wide. This is what I call a first-rate roller, 8 feet 6 inches long, 3 feet 6 inches in diameter. As for the frame, there is no use of me describing that, as no man should be a farmer that does not know how to make one.

Boiling Feed for Animals.—I often read about grinding food for stock. I boil mine. I have a 50 gallon kettle set in an arch in which I put my corn (in the ear) and boil it until it is soft, and the way my animals thrive on it and good timothy is a caution, and ought to make dry corn feeders blush. It is much better than feeding raw ground corn. Eight ears of this will do an animal more good than 12 unboiled. There is nothing better to make a cow give good rich milk. John L. Moore. *Cottage Farm, Quincy, Ill., Dec.* 22, 1853.

Apple-Tree Hedges.

An esteemed correspondent at Bloomingburg furnishes us a sketch and description of a hedge, or rather a fence made by planting apple-trees two feet apart, and uniting the side branches, as we understand, with an operation like inarching, at a height of about three feet from the ground. The trees, being grafted, are intended for bearing fruit. Our correspondent thinks this fence, which he has now growing, will form a permanent fence in a few years. If this plan should succeed after a full trial, we should be glad to hear further from it; but our impression is that the unnatural position, and thick growth of the trunks, will be unfavorable to the health and thriftiness of the branches, as the trees grow older. For a simple screen, we would greatly prefer the privet or buckthorn, or arbor vitæ or hemlock for an evergreen screen. For a real substantial hedge to exclude beasts and boys, we have from present knowledge, more confidence in the Osage orange than any other hedge-plant, for the middle, western and northern states, except at the extreme north.

☞ Mr. W. T. Wallard, of Castine, Dark Co., O., the last week purchased a very fine four year old Ayrshire cow of E. P. Prentice, Esq., of Mount Hope, near this city.

A Reform Needed.

The time has been when the farmer's life has been regarded as almost an insuperable bar to respectability, by certain broad-cloth and kid glove devotees. Hence the reason that ambitious farmers' sons so frequently sought "learned professions," (although we regard agriculture properly understood as the most learned of all,) in order that they might be enabled the better to become fine gentlemen. We think farmers have been partly to blame for the prevalence of this feeling. They have not attended sufficiently to the cultivation of rural taste, nor even to personal cleanliness—they have not studied to make their homes pleasant and attractive by ornamental planting—gardening—fruit raising—by neat and well-furnished dwellings, well provided with literary and scientific food; and if any of them have aimed higher than the common level, they have rather sought for splendid emptiness, than compact comfort. No class of persons have such ample resources at hand for the beau ideal of cheap and real domestic enjoyment, as the rural resident.

There is however one great drawback on the comforts and attractions of country life, in the labor and drudgery to which farmers' wives are generally subjected. The occupant of the one to three hundred acre farm, must hire from two to ten men, and the farmer thinks it cheapest to board and lodge them in his family. There are some men of this class who are neat and respectable; but the great mass of "hired men" give little attention either to cleanliness or mental cultivation. In the evenings, the intervals during the day or meal times, and often on the Sabbaths, the house is largely occupied by these hired men, and the owner and his wife, with their young children, or with their grown up daughters, have no seclusion whatever for conversation, study, or writing, for it is next to impossible to prevent in ordinary farm-houses a pretty thorough intermixture of individuals of all sorts and sizes. This evil falls heaviest on the female part of the farmer's family,—for besides the inconvenience to which they are subjected by this unwelcome occupance of the house, there is a still greater inconvenience in the amount of drudgery which they are compelled to perform, in providing food for so large and hungry a family. There are many farmers' wives and daughters, well provided with property, whose time is wholly and closely occupied from the earliest dawn of every morning till long after dark, with a constant and laborious round of baking, and boiling, and stewing, and roasting—washing, scrubbing, and so forth, besides the large supplies which must be laid in far in advance for so heavy a consumption, in the shape of lard, candles, soap, dried apples, butter, sausages, and many things else to make slaves of women. It is no wonder that we so often see such women bent down and furrowed with premature old age, while the merchant's and mechanic's wives, and the city resident, at the same period of life, remain straight, vigorous, blooming, and active. We have heard a most worthy and intelligent woman, who at fifty, looked old enough for seventy, remark that at a fair estimate she had cooked at least fifty tons of food for laboring men. No wonder the town ladies regard it as a sort of state-prison punishment to be compelled to marry young farmers.

Now, what is the remedy for this great and general evil? It is simple, cheap and effectual, as we know both by observation and experience, and consists merely in providing good laborers' cottages, so that all the farm workmen may board and lodge at home. This is cheaper and more convenient and comfortable in every respect, for all parties concerned. It relieves at once the farmer's family, and gives the laborer the privilege of enjoying his own. He can board himself more cheaply than another can board him, by purchasing just such articles as best suits his wants and rules of economy, which his wife prepares at no cost to himself. The farmer, by agreement, furnishes these supplies from his farm, instead of paying money, only to single men. Men with families are usually more faithful and steady at their employment, and are always near at hand. "We cannot get married men that are worth a straw!" exclaims some one who has never provided any thing for them but comfortless shanties, into which no decent man could ever be induced to take his family; but let neat, commodious, and tasteful cottages be built, ornamented with a few square yards of door-yard shrubbery, or mantled with climbing roses and honeysuckles, with a small and productive vegetable garden, and no difficulty will be found in getting men of the right stamp. Such cottages, with two rooms below, and two chamber bed-rooms, may be built by using upright siding with battens, rough and whitewashed outside, and latbed and plastered inside, for two hundred and fifty dollars; and by a little architectural taste (but no ornament) will contribute much to the appearance of the estate. The small farmer who needs but one hired man, has but one such cottage to erect; the more wealthy land owner can well afford to build half a dozen to relieve his family from a troop of laboring men. Nothing, we are satisfied, would tend so much as this to make the condition of the farmer in every way both comfortable and respectable, and to lessen the dislike which some farmer's sons and daughters acquire for this eminently desirable of all occupations.

A KENTUCKY CORN CROP.—Kentucky has long been famous for extraordinary crops of Indian corn. If we remember rightly, a crop was reported there, some years ago, as producing 194 bushels per acre—some 20 bushels more than we have seen reported from any other state. Mr. S. F. TEBBS, of Cynthiana, informs us that he cultivated forty acres of corn on his farm near that place the past season, and sold the whole crop to a miller, who weigaed it at his mill, and that the whole yielded *ninety* bushels (56 lbs. to the bushel) per acre. The work expended upon it was as follows:—"Plowed deep (8 or 9 inches) early in the spring—planted 1st to 10th May, 3 feet by 3—gave it two furrows each way, and hoed part, where the grass (foxtail) interfered. All done and laid by before jointing."

Plans for the Year.

A person who first visits one of our best manufactories, is struck with the perfect order and system that prevail in every part of the establishment. Every man is busy, and every one knows his place; every part of the machinery is perfectly adapted to its intended purpose,—slow and powerful in one part, and light and rapid in another; the power applied to move the whole is just sufficient for all its multifarious operations, and none is wasted; the rough material is carefully worked up in such a way that nothing is lost; and skillful calculations are made of all the expenditures as compared with the future profits, and the whole carefully recorded by skillful clerks, in such a manner that those transactions that contribute most to profit, or those which occasion loss, are quickly detected.

Is it so with the farmer? Does he so arrange his business that every hired man is occupied, knowing at any moment what work is assigned him, and so that none are idle at one time, and again overwhelmed with accumulated work at another? Is the team power perfectly adapted to the amount of tillage in view, with steady labor, and without over-driving? Is the system of business such that the farm forces may be evenly distributed through the season? And, above all, has the careful and keen-sighted farmer ascertained by accurate accounts and by weighing and measuring, which of his operations are paying him best, taking the cost of the rough material, the expense of working it over, and its ultimate avails, all together into the estimate?

The farmer's rough material,—the land and the manure applied to enrich it,—is too often left out of his calculations. He counts only the amount of money *received* at the end of the year, and the cost of labor, but nothing more. A system of cropping is pursued that *appears* to be profitable, because it returns money; but if it is really impoverishing land, the owner is really selling off his farm piece-meal, and it is as great an error to call such a course profitable, as it would be to sell off a ten-acre slice each year, and throw the avails promiscuously into the sales of crops. Nay, it is *better* to reduce the farm in size, than to reduce it in quality, for the reason that a small and fertile farm yields more *nett* profit, than the same produce from a larger estate cultivated at greater cost. Manufacturers are very careful of the rough material—let no farmer be less so, because, unlike them, he is not compelled to buy his supply every year; for a bale of raw cotton or a ton of wool, is worth as much when left by inheritance as when paid for each day in cash. An interesting proof of the deceptiveness of *present* profit was furnished by an experiment performed some years ago in England with two distinct plans of rotation,—one, with the wheat crop occurring frequently, and constituting a more exhausting course; and the other more beneficial to the soil, but affording less return in cash. At first the close-cropping course appeared decidedly the most remunerative; but in the course of years the other course had so improved the land, that the minor or secondary crops themselves proved as profitable as the wheat crop had formerly been, which now far exeeeded them, and thus rendered the enriching course the best, even throwing out of view its influence on the soil.

An even distribution of labor is of much importance, and not unfrequently entirely overlooked. Hands hired for the season commonly come to understand the routine of work much better than day-hands, and they work more cheaply. A farmer sows half his fields with wheat, with the hope of realizing a fine sum of money; but after the wheat is sown, his men have but little to do that is profitable until the next harvest, when he may be compelled to pay double or even triple wages, all of which trim down the profits, to say nothing about the "rough material." The appropriation of land to the production of some particular product exclusively, has been beautifully advocated by theorists, but in long practice it will not be found to compare with mixed husbandry, that is, with the judicious rotation of crops, combined with raising full herds of domestic animals for the production of manure. In other words, raise plenty of animals, to enrich the crops, which are to feed the animals again. This action and reaction is the very best way to create a plentiful surplus for sale, and at the same time preserve or iancrese the fertility of the farm.

There is no error more common than the imperfect execution of certain operations, when the farmer finds himself behindhand, with a deficiency of hands. This error is the cause of the luxuriant growth of mulleins and thistles so often seen in pastures; and of the heavy coating of weeds which overpower young root-crops, and choke the free growth of corn and potatoes. These often consume all the nett profits of the crop, and a defective plan thus compels the farmer to labor for nothing. We have known a crop of oats so diminished by a few days delay in sowing in spring, and a large field of wheat by a similar delay in autumn, as barely to pay for seed and labor, which otherwise might have yielded a heavy return.

There is no remedy for these evils but a careful and accurate plan of operations at the commencement of the year. The course of cropping should be distinctly marked out beforehand, and the number of acres determined for the oats, barley, corn, potatoes, carrots, wheat, corn-fodder, and so forth; the amount of labor for each of these may be nearly estimated, and the time in the season when each should be fully completed; and then, making allowance for interruptions, accidents, and rainy weather, the requisite force may be timely secured, and the whole machinery move on with regularity and without any derangement. All these plans must be fully recorded in a book kept for the purpose—if the memory is depended on, confusion and failure will be the certain result. If possible, the year's plans should be so completely digested, that the operations of every week may be distinctly laid down on a page allotted for each; the necessary variation of

a few days, according to the earliness or lateness of the season, may be easily made afterwards. On such a book as this, notes may be made with the progress of the season, thus perfecting the plan for a second year. A few minutes daily devoted in this way, will accomplish much that is valuable for the farmer, and prevent a great deal of anxiety and confusion.

Bone Manure.

MESSRS. EDITORS—You have mentioned bones being valuable for land. I should like it if you would explain the best mode of preparing them, and the mode and quantity of using them. JESSE EASTMAN. *Landaff, N. H.*

Bones contain highly fertilizing matter in the form of gelatine and phosphate of lime. But the great difficulty is to reduce them to a state so as to act, for an unbroken bone will not yield a hundredth part of its materials to a single crop. Even ante-diluvian skeletons, which have laid thousands of years in the earth, have been found to have parted with only one half of their gelatine, and most of their phosphate remains. Hence the importance of grinding *finely*. Bones cracked into fragments the size of peas, will be many years in the soil before they become disintegrated and wholly efficacious.

1. *Ground bones* operate best when applied in autumn, as frost and moisture assist in bringing them to the best acting state. If applied late in spring, and especially if the season be dry, they will not probably be of any use the first year. On heavy soils, about six to twelve hundred pounds may be applied per acre; on light soils, about one half this quantity. The best way, however, is to compost them with stable manure, the efficacy of which they assist by the additional supply of nitrogen and phosphate afforded by the bones, which, being deficient in alcaline salts, are supplied from the manure. The addition of ashes, for this reason, is advantageous.

2. By *steaming bones*, under a high pressure, the gelatine is mostly withdrawn, and the remaining soil, when cold, becomes very brittle, and are easily ground to a fine powder. This preparation is very efficacious, but the difficulty in adopting it consists in the required steam apparatus. A less quantity of this preparation is needed per acre.

3. *Dissolving in acid*, has become the most approved method for ordinary use, and requires in order to be well done that the bones should be previously ground. If only broken, the acid dissolves the outer portions, leaving the most of the fragments untouched, and a part of the acid being consequently uncombined, proves injurious to vegetables, unless very cautiously applied. The best way to use the acid, according to Stockhardt, is to form a mound of a mixture of finely pulverized earth and sifted ashes, of such a size that a cavity (or crater) in it may contain one hundred pounds of bone dust. This mound must be beaten very compactly on the outside with a shovel. Sift out the finer bones, and place them one side, and place the coarser in a cavity. Sprinkle them, stirring and shovelling all the while, with 3 quarts of water, and then add gradually eleven pounds of sulphuric acid, still continuing the stirring and shoveling. The next day, add a like quantity of water and acid, in the same manner, and afterwards add the finer bones, previously laid aside, and when the action of the acid is completed, mix the bones, earth and ashes well together. From two to four hundred pounds of bones thus prepared are enough for an acre. As there are only 22 lbs. of acid to 100 of bones, by this process, there will be little chance for any free acid remaining. We would recommend that even this compost be mixed with common manure for application to land.

Drawing Manure in Winter.

Will manure carted into the field and left in small heaps during the winter, be deteriorated by the freezing and thawing processes to which it will be subjected in this climate? I should like to draw out the manure I intend to top-dress my meadows with next season, whilst I can drive over my lots without cutting up the surface, and should likewise wish to spread it as soon as it thaws out, in March or April, before the the last snows cease to fall, if I can do so without losing the fertilizing principles by the exposition produced in freezing. If I can do this work now, it will anticipate by so much the labor of spring, when I shall be pressed for time. In this particular instance my manure heap is a compost of muck with the accumulations of the barnyard; but I should like your judgment in regard to any and all manures. S. *Syracuse, Dec.*, 1853.

Fermenting and evaporating kinds of manures, that is, all fresh animal droppings, are most economically applied to grass lands late in fall, because every rain or thaw that occurs carries the fertilizing parts down into the soil, so far as this descending process can take place. If it has not been applied and spread in autumn, the next best time is very early in the spring. If put on after the arrival of warm and dry weather, it will be of very little use.

Manure may be drawn in winter with great advantage, and some good farmers prefer spreading it at once, believing the injury by exposure when frozen to be quite small and less than the loss by fermenting in heaps. If however the heaps are small, there will be very little fermentation. Ice, snow, and all frozen matters composed largely of water, will evaporate, even many degrees below freezing, but it is questionable whether any valuable amount will pass off in this way.

Where compost is used, if it contains a due proportion of loam and peat, no loss can occur by either mode of treatment or by fall or spring application, as fermentaiton has already taken place, or else the volatile parts have been secured by absorption.

THE BARLEY CROP OF THIS STATE.—The *State Register* of this city, says that the sales of Canal Barley in this market for the season just closed amount to 1,761,100 bushels. This includes only the sales of the crop of 1853. The average price is a fraction under 81½c.; the highest price paid was 88c.; the lowest 70c., and the greatest quantity sold at one price was 299,500 bushels at 84c. The aggregate value of the 1,761,100 bushels was $1,432,575. If the sales reported in the early weeks of canal navigation are included, which were at prices ranging from 66c. to 72½c., the aggregate sales reported will be 1,836,500 bushels, and the average price will be a fraction over 80½ cents. The aggregate bushels is $1,481,341.

Albany County Agricultural Society.

The annual Meeting of the Albany County Agricultural Society was held in the State Agricultural Rooms, in this city Wednesday, Jan. 4. A respectable number of the farmers of the county were in attendance, and every town but two was represented. The following is an abstract of the Secretary's report:—

The officers have endeavored, in the discharge of their duties, to carry out the purposes for which the Society was organized, and in such a manner as to place it on a permanent basis, by securing the confidence and good will of the farmers of the county. The success which attended the first fair is a matter of congratulation, and a cause of just pride to every one interested in the progress of agriculture and the development of the industrial resources of the county. Those who regarded the Society as an experiment of rather a doubtful character, have been fully convinced that Albany county is capable of maintaining an Agricultural Society which will be a credit to herself, and compare favorably with kindred organizations in her sister counties.

As the award of premiums was publicly announced at the time of the Fair, (Oct. 6, 1853,) a brief statement of the general results of the first exhibition will be all that is necessary at the present time. In the Stock Department there were 122 entries. The whole number of Horses on exhibition was 96; of Cattle 107; of Swine 29; of Sheep 48; of Poultry 108. The amount of premiums awarded in this department was $285. The show of Native Cattle, and especially of Dairy Cows, was small, as also that of Sheep and Swine; and it is hoped that in future exhibitions this deficiency will be remedied.

In the department of Fruit, Vegetables, Flowers, Plants, and Dairy products, there were 81 entries. The show of Fruit and Vegetables was large, and in every respect creditable to the Society. There was little competion for the premiums offered on the products of the Dairy, and the statements accompanying the samples were not made with that accuracy which is desirable. The amount of premiums awarded in this department was $43.

In the Ladies', Manufacturers' and Miscellaneous departments, there were 110 entries, and the amount of premiums awarded was $129. Notwithstanding the derangement of the articles occasioned by the tearing of the tent, the show in this department was one of the most interesting features of the Fair, and should by all means be encouraged.

The whole number of Exhibitors at the first Annual Fair was 313, and the whole amount of premiums awarded was $457. The receipts of the Society from all sources for the current year were $1,252 85, and the disbursements $1,064; leaving a balance in the treasury of $188 85.

The reports of the Secretary and Treasurer having been accepted, the following gentlemen were appointed a committee to nominate officers for the ensuing year; B. P. Johnson, Albany; A. E. Willis, Coeymans; George Cary, Bethlehem; C. Batterman, Guilderland; Col. Levi Shaw, Rensselaerville; Z. M. Sanders, Watervliet; P. V. W. Brooks, New Scotland; D. Crary, Knox. After deliberation, they reported the following officers for 1854:—

President.—James W. Jolly, Coeymans: *Vice President*—B. P. Johnson, Albany; *Secretary*—Joseph Warren, Albany; *Treasurer*—E. E. Platt, Albany.

Managers — Joseph Cary, Albany; L. Lobdell, Berne; Elias Milbank, Bethlehem; A. E. Willis, Coeymans; C. Batterman, Guilderland; Dennison Crary, Knox; Joseph Hilton, New Scotland; Levi Shaw, Rensselaerville; A. Osborn, Waterveliet; H. E. Robbins, Westerlo; who were unanimously elected.

A considerable number of gentlemen immediately made themselves members of the Socieiy; and the unanimity of feeling and the interest manifested in the succes of the Society, argue well for its future prosperity and usefulness. Joseph Warren, *Sec'y.*

Roofing for Buildings.

Eds. Country Gent.—I notice some remarks in your paper of the 28th inst. in reference to cheap roofs, and the cost of some, as reported in the Prairie Farmer, as being from five to six dollars per 100 feet. Now, speaking from experience, I think I can tell of a covering for roofs cheaper than any of that kind, and at the same time not liable to any of the objections allowed to exist in those of which you speak, while it is of a material certainly less destructible from exposures incident to all roofs, than that spoken of there.

The roofing planks or boards should be of hemlock, laid close together, and at least three nails driven in the width of the planks or boards wherever nailed, to prevent warping from the heat of the sun. Over these may be applied a coat of coal tar for the purpose of furnishing throughout the whole a fastening to the covering to be spoken of, as the sun as it beats on the roof while the tar is not yet thoroughly dried in, renders it sufficiently liquid to cause an adhesion to be effected between it and the covering.

The best material to cover with is twilled cotton cloth, costing here generally not to exceed eight cents per yard, and possessed of sufficient body to retain, without allowing to pass through it, coal tar mixed with cement, (Rosendale,) or fine brick dust, laid on with a white-wash brush. Over the whole while yet new, sand can be sifted; this serves to keep the covering in its place and to prevent the wind, from crevices below the roof, from raising the roof covering, and when thoroughly dry, cracking the coating on it.

This kind of roof, unlike those referred to in the beginning of this communication, will be good and permanent where those are nearly worthless, viz. on steep roofs, and certainly here more than on flat or shed roofs, costing less than one-third of those. The cloth may be laid crosswise the length of the boards or not as the maker wishes—should be laid on the surface of the roof boards, without any raise, and lapped at least one and a half or two inches, using tacks of the size of those used commonly in fastening down carpets, driven pretty close together; the hemlock being possessed of great retentive power, no fear of their drawing out need be entertained, and as for rusting, the tar renders that impossible. I covered a roof of upwards of 400 square feet in this way at a cost of about $7,50, which has now been in use three years and upwards, showing slight defects occasionally, but which are wholly attributable to my want of experience in laying it down—I never having heard of any thing before like it, and being, as I believe, the first of the kind in this region of country.

Hoping that the information communicated may be of use to many on whom, like myself, Mammon has not smiled benignly, I will farther say, that in answer to any inquiries through your paper, I will communicate, if agreeable to you, any information which my experience, since acquired, will allow. L. V. W. *Bethlehem, Dec.*, 1853.

Helderburgh Farming.

EDITORS COUNTRY GENT.—In my letter of Dec. 7th, on Helderburgh Farming, I promised to give you the rotation of crops still farther, after I had prepared the land and considered it in sufficient tilth to raise any crop. We can now cultivate almost any crop to advantage, provided we can keep the land in good heart without laying out so much expense as to entirely destroy the profits. To secure this necessary end, in the latter part of March or fore part of April, I sow on the wheat crop about ten pounds of the small kind of clover seed to the acre. I prefer to sow it after the fall of some light snow. I prefer the small kind because it makes a turf sooner than the larger, and comes to maturity much earlier. By the time the wheat is ready to come off in August, this young clover has obtained a fair start. The fall rains assist it still more in forming a complete mat over the whole surface of the ground. Should snow fall early, without much frost in the ground, this clover will grow and thicken during all the winter.

In the spring, say about the 10th or 15th of May, this clover will have attained about its full maturity. It is then plowed in with a flat furrow at 8 or 10 inches depth, and a roller passed over to make it smooth. Then marked out both ways with a corn-marker, from 2 feet 9 inches to 3 feet apart, and is then ready for corn or potatoes, whichever we may choose to grow. The method of treating the corn crop does not differ materially from that discussed by your Malone correspondent, in your paper of Jan. 5th. I use a small handful of composition, (consisting of about ten bushels ashes, three bushels plaster, and 100 lbs. guano,) to the hill, and prefer not over three stalks to the hill when the rows are but three feet apart. I consider the stalks, if well secured, to about pay the whole expense of raising the crop. To effect this, I cut up early in small stooks, and if possible secure all in the barns without any rains to bleach them.

I consider this clover plowed in, in the manner decribed above, as good as about twenty loads of manure to the acre. Should we plow in the fall, as does your Malone correspondent, this green manuring would be lost, and besides experience has abundantly taught the farmers of this region that fall plowed sward land for corn, is attended with almost an entire loss of crop from the ravages of the "wire worm," as it is called; whereas they are seldom known to affect the crop when sward land is left till spring.

You see I prefer leaving the herbage to grow until I am ready to plant, and would do it all in the same day if convenient. Land plowed in the fall does not prove so detrimental to the potato crop; for if the worms do eat off the main root the others become equally productive. The only difference is, so far as my experience goes, that we have just as many potatoes when the stalk has been attacked by the worm, only an almost infinite number of exceedingly small ones besides. Now I am speaking of these "wire worms," I will inquire, Mr. Editor, if you or any of your correspondents can inform us how we can rid the land of them? I have seen it suggested in some of your papers, that soaking the seed in tobacco water will entirely prevent their ravages. Will it do as well on barley? Why will they attack the fall plowed, and leave the spring plowed almost entirely harmless? But I must hasten to give you the rotation still farther.

The corn crop being secured, the next in order is peas; then wheat, as before described; then seed with clover again, and this rotation may be continued for any number of years, and all the crops improve in quantity and quality (other things being equal) from year to year, until I have no doubt fifty bushels can be realized from the acre, with no expense above the ordinary labor, save that of a few pounds of clover seed and the carting of the manure, which is very much increased in consequence of the increased produce of the acre. As we increase our product from the acre, we increase our stock on a given number of acres; and this stock well husbanded, produces that fertilizer which would, with a little enterprise, soon make our land "flow with milk and honey."

Should it be deemed advisable at any time, to raise grass for hay or for soiling, I should adopt this method: instead of the ten pounds of clover seed to the acre, I should, in the fall, when sowing the wheat, sow about two or two and a half bushels of timothy, and say half a bushel redtop seed to the acre, and then the ten pounds of clover in the spring, as before stated. The objection to seeding so heavy I know is, that it cannot all head out, and is thus of no use. I know that not one spear to a million can head out, but as much will head out as would if seeded lighter, and the remainder makes a rich and fine under-growth, of which all kinds of stock are so fond, and besides it being so thick, once wet in the spring, it never dries out so as to injure the growth. It may be mowed twice, and even three times, and will produce at least four tons to the acre. One acre is sufficient to keep a team of horses during the season of fattening, by keeping them up, whereas four acres would be necessary should they be suffered to run out. The same observations will apply to other kinds of stock, such as milch cows, working oxen, &c. The other three acres can be profitably employed in raising other orops. I tried the experiment a few years since on a small scale (about half an acre.) As soon as the grass manifested any disposition to lodge, I cut it and secured three loads of good hay. This was in June. The next mowing was about the first of August. This yielded two loads, and the next in September, which produced one load. I consider this last mowing as rather a disadvantage than otherwise, as it leaves the ground too bare, and is very liable in consequence to winter-kill. I am aware of the objection that such hay does not "spend well," and the answer is, that it does not. But cows thrive well on it, and give, if not as much milk as when fed on grass, at least far richer. I know that ripe hay, as it is called, will "spend well," for I have seen it lay

before the stock from day to day, and the stock none the better for it, when the other quality would not only be "eat up clean, but they would lick the spot where it had lain."

I have now given you some information as to our manner of farming in these Helderburgh mountains. Some farther improvements suggest themselves, which I have not mentioned. It frequently happens that wet or cold patches are found sometimes lower than the surrounding surface. These patches are so wet as to be unfit to till when the rest of the land is ready, and if tilled when wet, produce nothing. When they are not caused by springs, my method is to excavate them when dry to the depth of about three feet with plow and scraper, sufficiently wide to drive in with an ox-cart. All the small stones are then collected that we can lay hands on, and dumped into this excavation, until filled within a foot or foot and a half of the surface. The soil hauled out, is then hauled back again. The result is that the water settles down amongst these stones, and leaves the surface of the ground dry as soon or before the rest of the field is; and I will add, you would be astonished to witness the growth in grain or grass around these places thus underdrained. In case of springs, I dig a trench some three feet deep and cart in all the small stones and cover it up as before—this answers a double purpose; it rids the land of small stones that are unfit for walls, and furnishes a permanent drain. The stones should first be covered with inverted sods, straw, weeds, or some other substance, to prevent the dirt settling down in the crevices and thus obstructing the water. A drain that I laid some six or seven years ago, does as well now as ever.

The standing objection to all these improvements is that they cost too much. I reply, we may estimate the price of land here at about $25 per acre. Now, by laying out, say $15 or $20 on the acre, it will then be less in price than land in western New-York, and I cannot see why it is not equally as good, the difference in advantages to market excepted. Our plank roads to Albany, New-Baltimore, Coeymans and Coxsackie, when completed, will bring us within less than half the distance we now are from those several towns. But more of this when I call your attention to the raising of buckwheat, the great staple of this county, and I may say of the western towns particularly.

I must now close this sheet and apologize to you for these fragmentary remarks—these "crumbs" that seemed to fall from my last. Wishing you much success in your enterprise on this "new year," I remain, as ever, very respectfully yours, G. W. Durant.

Rensselaerville, Jan. 10, 1854.

Experiments with Super-phosphate of Lime.

Messrs. Editors—I am going to inflict upon you some of my notions and experiments. First, were you aware that your bump of cautiousness was pretty large? In the course of my reading last winter, I became mightily tickled with the name of "Super-phosphate of lime," and the wonderful properties it was said to possess, and looked carefully over each number of the Cultivator for your opinion; but you, I suppose, was pleased to keep that to yourself, though repeatedly inquired of. Well, I went to Lowell, six miles, and there not being any on hand, ordered a bag of that made by "Professor Mapes"—went again and brought home my bag, being told by the dealer that the directions for using it were within the bag; but upon examining, no directions were to be found; but I made another discovery, viz., that the bag was marked "Deburg, Cliff-street, N. Y., Longett & Griffing." Well, being left in the dark, I went on to experiment as follows:

May 21st, planted corn, and put one large spoonful of the phosphate in each hill of eleven rows, in all about 850 hills, leaving spaces between without the stuff.

On the 23d, on summer squashes and cucumbers in alternate hills, 2 spoonfuls—on pole beans, alternate rows, one spoonful in a hill, and on beets, carrots, peppers and cabbage seed, in drill, alternate rows.

On the 24th, 18 lbs. with twice its bulk of moist earth, sowed on 30 square rods of wheat, at the rate of ¾ lb. per square rod. On the same day, same quantity sowed on strips of oats. On the 1st of June, put on beans after the first hoeing, one row in four, 8 spoonfuls in the hill—one of two rows of early corn, one of three rows of potatoes, all the same. On one of three rows of peas, and on three hills of cucumbers, three inches high, so as to cover the ground one-eighth of an inch thick.

After having done as above, I watched for the result, and behold, what? Nothing, nothing—all moonshine, with the very slight exception of the beets, carrots and peas, in the first period of their growth. On all the rest, its operation was perfectly invisible throughout the season.

My soil is a granite soil, yellow loam, with some cobblestones. Now wherein did I fail? Who can, or who will tell? The dealers in, and makers of, these manures, as they term them, accuse us poor farmers of being shy of buying their *stuff*. I for one own the soft impeachment, now more than ever, for I have not $5,00 to throw away every day, nor am I remarkably fond of being totally disappointed.

A correspondent of yours in the Dec. No., put no more phosphate on his hills of corn than I did on mine, yet he says he had a large increase from its use. I think his was of the same make as mine. Now if the information can be had, I should like to know why I failed and he succeeded? Luther Butterfield.

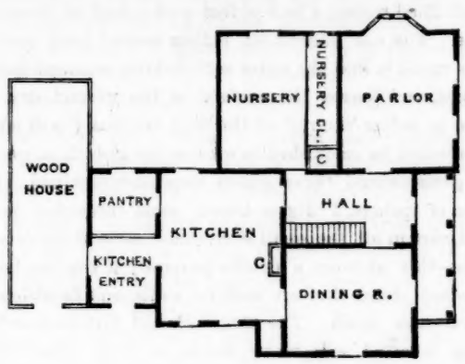
We have certainly been chary in recommending the general use of superphosphate of lime, for the reason that we are as yet without sufficient accurate experiments to show on what crops and upon what soils it may be profitably used. It is well worth while for farmers, whenever they can without too much expense, to test the value of such fertilizers; but no one can safely recommend them for general use without better data than has yet been presented to the public.

Plan of a Country House.

THE Italian style of building commends itself on several accounts as one of the best, if not the very best, of all the different styles for the exterior of country houses. It has all the air of simplicity and utillty combined, for which the Grecian has been so long distinguished, at the same time that it is perfectly free from all formality and stiffness. It is not attended with any of the inconveniences that so frequently result from steep-roofed gothic dwellings, giving the upper rooms a bad form at the ceiling, and causing an uncomfortable heat under the summer sun. The entire freedom of form for its exterior, fits it for almost any plan that may be devised, and this quality becomes one of great value to a large portion of American country residents, who so frequently find it convenient to enlarge their dwellings, as their families and means increase. Additions, judiciously made, rather add to than detract from the architectural effect of the original structure, a quality which is not found, at least in so eminent a degree, in any other style.

We furnish above, an engraved view of a convenient and moderate country house possessing an Italian cast, perfectly simple in its structure, and entirely free from the campanile and other unnecessary decorations. The further roof seen in the view, only covers, by its double sides, the parlor; while the nursery has a lower and separate roof, hipped like that of the veranda. Below is the plan, which sufficiently explains itself, *c c* being the places for the chimneys, for the reception of the pipes of such stoves as may be needed—for these, with proper ventilation, are quite as healthy as any other mode of heating, notwithstanding the frequent remarks of those who possess more poetry and imagination, than science and fact.

In estimating the cost of such a house, very much will depend on the style of finish, and the size and height of the rooms, causing a variation from $1,500 to $3,000. If built as a plain and simple farm house, depending mainly on neat and tasteful planting for its decoration, and with rooms only eight or nine feet high, it would scarcely exceed the former sum; but if the rooms are built eleven or twelve feet high, and in



a more finished and substantial manner, it could not be done for less than $3,000, and the cost might easily be run up to four or five thousand

Successful Method of Grafting the Peach.

To successfully graft the peach tree, has been universally considered next to an impossibility; but in consequence of the ease and success of budding, this concession has seemed of but little practical importance. Yet every one, of the least experience in this matter, knows that many trees, where budding had been neglected or unsuccessfully performed, might be saved and rendered valuable if grafting could be performed with success.

I am aware that Dr. Page, of Washington, published and coppyrighted, about a year ago, a method of grafting the peach, for which he claimed success, equal to that attending ordinary grafting. His plan consisted in checking the growth of the tree simultaneous with grafting, by transplanting or root pruning.

The plan given below is more simple, and from limited experience I should think more successful.

It consists in grafting early, as for other stone fruits, in the manner of the common cleft. The side seams are to be waxed in the usual manner, the cleft *filled*, and the end of the stub covered with *warm* or melted composition. The whole is then to be wound with composition cloth, to prevent curling of the bark.

That this plan will succeed, is a demonstrated fact, but in how great a proportion of cases, experience is too limited to determine. Suffice it to say, that eight scions set in different branches of the same tree, all lived and grew with astonishing rapidity. Will others give this plan a trial and report the results. O. C. GIBBS, *M. D. Perry, Ohio.*

The Corymb-flowered Habrothamnus.

HABROTHAMNUS CORYMBOSUS.—This plant, like *H elegans*, is a native of Mexico, but not so striking or so well adapted, where only a few plants are cultivated, as that species; still, in an extensive collection, with good cultivation, it is worth growing. The plant has a vigorous erect habit, producing its flowers in a terminal corimb, funnel shaped, gradually widening upwards, and forming a pitcher-like appearance; the color is a deep rose.

Owing to its vigorous habit, it should not be too much stimulated either by soil or watering; otherwise the culture recommended for the *H. elegans* will answer for this.

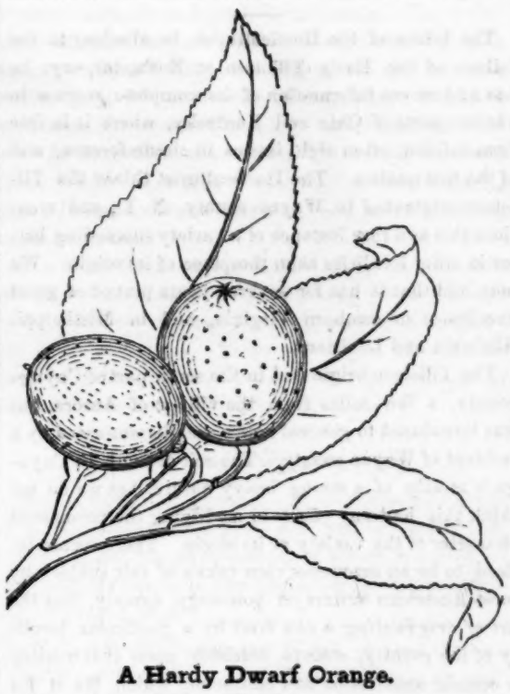
It is said to do well planted in the open border, as a specimen plant. For this purpose it should be planted out as soon as all danger of frost is over. In a loamy, gravelly soil, it would doubtless form an attractive feature in a flower garden. E. S.

Mulching in Winter.

We were surprised to observe a few weeks ago this pratice recommended for trees by one of our best horticultural writers; and several others of lesser magnitude, have implicitly followed his example and repeated the recommendation.

Instead of mulching for winter, we should rather recommend the careful removal of all the material used for this operation, in the autumn or some weeks before winter, if composed of straw, litter, or any substance affording shelter for meadow mice. We have known very serious loss from a neglect of this timely removal.

We presume the object intended by the recommendation alluded to, was to protect the roots from the severe cold of winter; an object which may be attained, so far as newly transplanted young trees are concerned, by forming a mound of earth over the roots. Such a mound, even if only eight inches high, and but little more in breadth, will perfectly exclude mice from winter attacks, as we have proved in *thousands of instances*, without a failure.



A Hardy Dwarf Orange.

There is a little dwarf tree of the orange tribe (*Citrus japonica*,) which has been lately introduced from China, which, although too acid for eating fresh, may prove valuable for culinary purposes, especially as it possesses a very unusual quality for this tribe of trees, namely, that of entire hardiness for the middle and most portions of the northern States.

The fruit is about the size and shape of a large English gooseberry, has a sharp acid pulp, and is much used by the Chinese for preserving. We have no doubt that it would be found especially valuable to give flavor to other preserved or dried fruit. The tree grows in China to a height from three to six feet, or a little larger than our currant bushes, and is described as being very productive. The fruit ripens late in autumn, and forms a handsome contrast with the clear green leaves, which are smaller, thinner, and narrower than the common orange.

Strawberries in Winter

R. G. PARDEE, of New-York city, well known to our readers as our correspondent formerly residing at Palmyra, N. Y., writes as follows, under date of Dec. 30, 1853: "We have strawberries in Thorburn's window, taken from C. F. PEABODY's garden in the open ground in Columbus, Georgia, on the 20th Dec. instant. The plants, fruit, and earth, were transplanted into a large pot of earth, and that enclosed in a basket and sent by express, so they arrived in as perfect order as grown in the garden. Ripe and green fruit in all the different sizes and ripeness—large, fine Hovey's and Early Scarlet,—looked luscious enough in this day of snow and frost."

Will our esteemed correspondent please furnish us the mode of treatment by which this remarkable result has been attained?

Early Tillotson Peach—Native Localities of Fruits.

The Editor of the Horticulturist, in alluding to the failure of the Early Tillotson at Rochester, says he has had recent information of its complete success in various parts of Ohio and Kentucky, where it is free from mildew, often eight inches in circumference, and of the first quality. The Horticulturist thinks the Tillotson originated in Wayne county, N. Y., and mentions this as a rare instance of a variety succeeding better in other localities than the place of its origin. We may add that it has for several years proved of great excellence in southern Virginia, and in Mississippi, Alabama and Louisiana.

The Tillotson originated in the south part of Cayuga county, a few miles from the village of Aurora, but was introduced to general notice and disseminated by a resident of Wayne county. The soil of southern Cayuga is mostly of a strong heavy nature, but we do not think this had any effect in modifying the permanent character of the variety at its origin. There seems indeed to be an erroneous view taken of this subject by most American writers on pomology, namely, that the *act of originating* a new fruit by a particular locality of the country, stamps indelibly upon that variety a certain constitution and character, which fits it for that locality better than for any other. Hence, foreign fruits are looked upon with suspicion, and native fruits pointed out as the only ones entitled to the confidence of cultivators. We are compelled to adopt a different opinion, and to look upon such sorts, and such only, as entitled to our confidence, as long continued cultivation has proved valuable, without more than a secondary regard to their native locality.

If a pound of the seed of the best pears, grown on trees in France should be planted at London, or at Boston, or Cincinnati, we are not to suppose there would be any difference in the character of the varieties produced, whether germinating at one place or the other. What possible difference can it make to a seed of the Seckel pear, whether it is sprouted in the soil of New-York or Belgium? *Its character is fixed before it germinates*, as is clearly shown by the resemblances of the product to the parent, which no external treatment can alter or efface. Difference in *latitude*, it is true, often produces marked results on fruits, but difference of *longitude* in itself much less: For both have the same sun, a similar soil and atmosphere, and why should an interposed ocean cause any material difference?

Notwithstanding all this, the fruits cultivated at any locality are generally best for that locality, but not so universally so as many suppose, and for a different reason. The cause of this local superiority may be easily understood. Although a pint of seeds planted at one place will produce the same varieties precisely, whether planted in one country or in another, yet, when they come to bear and prove their character, one set of them would be selected at one place, and a *different set* at another, according to the peculiar influence of the soil or climate on certain soils, at the several places. If a thousand seedling trees were raised at Angers in France, perhaps a half dozen would be selected as of good quality; if the thousand had been raised from the same seed at Rochester, or if the young trees produced therefrom at Angers, were removed, a different half dozen might be chosen, because the soil and climate produced dissimilar results at the two places.

There cannot be any other local influence, operating to any considerable extent, than this; and from it we may infer, that although a fruit will *probably* do best in a soil and climate similer to that of its origin, yet it *may* do better elsewhere; and for this reason, all good fruits in one district, are worthy of trial in others. The Seckel pear, although smaller in Western New-York, is of higher flavor than at Philadelphia, the place of its origin. The Jonathan apple, a native of New-York, is much finer when well grown in central Illinois; the Doyenne, Bartlett, Femish Beauty, Winkfield and Louise Bonne Jersey, cannot possibly stand higher in their native European localities, than in large portions of America.

We have long since come to the conclusion that there is a vastly greater influence exerted on fruits, which grow in the *same garden*, by *good* and *bad culture*, than by a great deal of difference of locality. A neglected tree will produce small, bad, and tasteless or astringent fruit; highly cultivated, well pruned and manured, the same sorts will be large, juicy, and really delicious. We have not unfrequently witnessed this difference. We have shown the Editor of the Horticulturist upon our own grounds, beautiful specimens of the Tillotson peach, in the form of crimson globes, two inches in diameter, which had grown on a fine soil, and on *well pruned trees*, and we *could* have shown him other and more neglected trees, of the same variety, that bore very contemptible fruit. We are aware however that good culture with this peach has not succeeded in a few places, and more particularly in the immediate neighborhood of Rochester.

Large Pears.

In October last, there were exhibited at the Annual Exhibition of the Montgomery county (Pa.) Agricultural Society, three *Duchess D'Angouleme Pears*, grown by ROBERT IREDELL, editor of the Norristown Herald and Free Press, the weight of which were respectively, 1 lb. 3 oz., 1 lb. 3¼ oz, and 1 lb 9¼ ounces. They were the product of a tree, planted from the nursery in the spring of 1852; the tree was 5 ft. 4 in. in height last spring. The two largest pears were grown on one twig. Dr. BRINCKLE pronounced them the largest, the finest specimens he had seen in this country.

From a single seed, I grew eighteen pumpkins, weighing 534 lbs.; the smallest weighing 20 lbs. 5 oz., and the largest 36 lbs. 9 oz. Averaging 29 lbs. 12 oz. If any one has seen a larger yield from one seed I would like to know it, and will feel thankful to them if they will have it published in the Cultivator that I may see it. FRANKLIN DOOLITTLE. *Susquehanna, N. Y.*

Quince Stocks.

Is there any real ground for the pretensions set up by some of the nurserymen, that the imported "*Angers* Quince" is superior as a stock for dwarfing the pear, over the common varieties of this country? I may as well say in advance, that I am incredulous on the subject, and that too after no inconsiderable experience and observation. In fact, I don't believe a word of it; but as it is held by some good friends of mine that no other than "Angers" stock is suitable for the propagation of dwarfs, I should be glad to know what you think about it. S. *Syracuse, Dec.*, 1853.

The Angers quince, which is an improved sub-variety of the Orange quince so far as luxuriance of growth is concerned,—is best for the pear in nearly all instances. Its growth continues later in autumn, which occasions a better adhesion of the bud, and admits a later insertion. There are a few soils, particularly favorable, where the common or orange quince succeeds nearly or quite as well as the Angers for those sorts best adapted to dwarfing, such for example as Angouleme, Winkfield, Louise Bonne Jersey, Beurre d' Amalis, &c. We have often observed that some nurserymen succeed in cultivating a large number of pears with great success on quince, while with others having apparently an equally fertile but evidently a different soil, many of these will fail. SAMUEL WALKER, of Roxbury, Mass., who has one of the finest collections of thrifty pear trees in the country, informed us that he failed with the Rostiezer, Aremberg, and several other sorts, even when *double-worked* on the quince. On the other hand, we have seen these same varieties growing in other nurseries with luxuriance and uniformity, without double-working; and in some instances, those eminently refractory sorts, the Flemish Beauty and Marie Louise have been seen to grow freely and bear for many successive years on the quince. These however, are very rare exceptions to the general rule, and we mention them only to show that single experiments are insufficient to decide questions such as these. And although the orange quince may *sometimes* succeed as well as the Angers, yet for general use and promiscuous planting, the latter should always be sought, for it is always equal to any, and usually much the best.

Pears and Peaches for Vermont.

What varieties of pears would you recommend highest for cultivation in this (43½) degree of latitude?

Is it possible to raise peaches in this latitude and what sorts would you recommend?

Can the best kinds of foreign grapes be raised here—say the Black Hamburg, or White Muscat of Alexandria, on the south side of buildings, by protecting them from frosts with blankets or canvass, and left to ripen off along in the warm days in Oct., and burying the vines in winter? H. S. *Felchville, Vt.*

There are circumstances besides latitude that greatly influence the successful culture of the peach. When cold winds are softened by unfreezing lakes, the effect is very favorable. For example,—Cleveland at 41¼° lat., is a far better locality for the peach than southern Ohio, at only 39°. The south shore of lake Ontario, at 43¼° is incomparably more favorable than central Pennsylvania, three degrees further south. The favorable influence of hills and exposed places has been distinctly pointed out in No. 12, p. 375 of Cultivator, or No. 46, p. 314 of Country Gentleman. We have no doubt that many places might be selected in Vermont for the successful culture of the peach. Serrate Early York, Cooledge's Favorite, Crawford's Early, Early Barnard, White Imperial, and other varieties, might be chosen.

The Black Hamburg and Muscat of Alexandria could not be profitably raised in open air as proposed. A cold house would require less attention, and be incomparably more successful. There are a few exotics that may be grown in open ground, such for example as Black Cluster and Early White Malvasia.

Foreign Grapes.

MUSCAT OF ALEXANDRIA.—To those fond of a grape of a rich musky flavor, fine size, and an elegant appearance, the one in question, of which we give an illustration, reduced to one-fourth size, is well adapted. Mr. Downing says of it:—"The most delicious of all grapes, but requires to be grown under glass in this climate." It should also, to grow it to perfection, have the benefit of artificial heat at times; especially is this necessary at the time of the setting of the fruit, for without it, it is often a very irregular setter.

In vineries of any length, it will be found a very good way to divide them into two or more, by glass partitions, which will answer the two-fold purpose of bringing early and late grapes, as well as affording means to give each class of grapes the treatment they particularly require.

Where that is not obtainable, this one, as well as its variety—the *Cannon Hall Muscat*—should always occupy the warmest part of the house.

The color of this grape when well done, is a transparent pale amber, each berry often an inch or more long, branches from 9 to 12 inches, with small seeds, and sometimes entirely seedless. E. S.

ORNAMENTAL TREES.—Messrs. Lippincott, Grambo & Co. Booksellers, Philadelphia, have just issued a new work, entitled, the American Handbook of Ornamental trees, by THOMAS MEEHAN, Gardener to C. Cope.

Winter Pruning

Among the operations that the amateur can employ an hour or two of the sunny part of the day out of doors, is the pruning of the various fruits, such as *gooseberries, currants, grape vines*, and *apples*. Gooseberries fruit from small spurs on the old wood, and on the last year's shoots also. Hence they require only the superabundant wood cut out, leaving about an inch at the bottom to form the spur; no branches should cross or be closer than nine inches to each other.

CURRANTS.—The black, bears from the young wood only; hence requires only thinning, and an occasional worn out shoot taken out from the bottom, which induces young shoots to start from the same place, and so keep the tree young and vigorous. The red currant requires differant treatment, as its fruit is borne only on small spurs on the old wood. All last year's wood should be cut back to one inch, excepting the leading shoot on each branch, which may be left from three to six inches long, according as it may be wished to increase the size of the bush. It will be found a good way in pruning gooseberries or currants, to keep the center of the bush entirely open, leaving as many tiers of branches around this open space as the size of the tree will admit of, by which means a larger space is presented to the action of the sun and air, materially aiding the quality of the fruit.

GRAPE VINES.—The sooner they are pruned the better. By far too much wood is left in most cases on the vine, diminishing the quality of the fruit, and rendering them more susceptible to disease. The leading shoots of the vine should be trained straight, whether horizontal or perpendicular; at a distance of eighteen inches or two feet apart, cutting off all lateral shoots growing from these back to one eye. If the space on which the vines are growing is a good height, the best way to train the leading shoots is, first to take an horizontal shoot on each side of the main stem, at about six inches or a foot from the ground; then from this

at every 18 inches, (see figure,) start a perpendicular shoot to the top of the wall; but if the space is low, a better way is to take the first leading shoot perpendicular, and from this start the branches horizontally at the same distance apart. This gives the vine a neat and tasty appearance and allows the foliage plenty of room to expand, without which grapes of first quality cannot be expected for any length of time.

APPLES require some little attention in regulating the shoots and keeping the tree compact; all cross wood should be taken out, the center kept clear, and every branch allowed room to develope its foliage; the superior quality of the fruit will more than repay the trouble. Fine fruit must not be expected if the tree is a thicket; the only passable fruit will be at the points of the shoots; those on the inside will be small and colorless. E. S.

Fruits Free from Rot.

I have a tree grafted with Spitzenburghs, the fruit of which is much subject to rot. Please inform me whether if grafted with other varieties, the fruit will be as liable to rot. A. WANZER. *Sherman, Ct.*

As we do not know the cause or character of the rotting described, we can answer only in a general way, by observing that the Spitzenburgh is usually not so hardy a tree nor sound a fruit as the Rhode Island Greening, Roxbury Russet, Baldwin, Peck's Pleasant, and a few others, and therefore there is a probability that re-grafting with these fairer varieties, would effect an improvement.

Flowers for the Shade.

I should much like to see a list of flowering plants that do as well in the shade as in a situation fully exposed to the sun. JAS. HITCHCOCK. *Port Clinton, O., Dec*, 28.

There are several flowering plants that do better in the shade than when fully exposed, among which are those brilliant evergreen shrubs, the Kalmias and Rhododendrons. The Mezereon succeeds best in the shade, as well as the Funkia japonica, the gentians, chrysanthemums, pansies, the periwinkle, gladiolus floribundus and nataliensis, the Tiger flower, the auriculas, cowslips, and the forget-me-not. Most of the Phloxes, and Ranunculus do well in the shade, and many bulbous plants, as hayicinth, tulips, &c. All our wild flowers from the woods will of course succeed; such for instance as the Hepatica, Claytonia, Erythronium, Trillium, Lilium philadelphicum, Cypripediums, Orchis fimbriata, and Cymbidium. Some evergreens are much better grown in the shade; among them the box, which is always of a fairer green when sheltered from the sun. The English Ivy and the yew are of the same class. This list might, doubtless, be greatly enlarged by those who have had occasion to grow plants in the shade, our experience being quite limited in this direction.

Manure for Fruit Trees.

Will you be so kind as to inform me what kind of manure is best for peach and apple trees, young ones, I mean; by doing so I shall take it as a great favor. Truly, L. ADAMS. *Newark, N. J.*

For nearly all localities, nothing will be found better than a compost made of turf, stable manure, and a portion of ashes. The turf should constitute one-half or two-thirds, and the ashes if fresh, about a twentieth part, or if leached about a twelfth part of the stable manure. Bone manure, if accessible, may be added in still smaller quantities, but has not been much tried. A mixture of loam and peat may be used as a substitute for, or an addition to the turf. The heap should lie several months, and be well mixed. If for immediate use, rotten manure and ashes in the above proportion, will do very well.

A Cheap Green-House.

For those who are fond of flowers, there is nothing more interesting than their culture during the dreary months of winter. A few kinds will flourish well in the dry, hot, and changeable air of ordinary stove rooms; but it is not always convenient nor practicable to occupy the limited space of living rooms in this way, and most plants will not succeed so well here as in a cooler and more uniform temperature. An ordinary green-house is a somewhat costly structure; and regulating the fire during a whole winter is quite a formidable task. For green-house plants, properly so called, or those which do best in an air but few degrees above freezing, we have lately adopted a plan which we find to succeed admirably with but little care, and without the cost or attention of fire-heat. Although this plan is not altogether new, we believe a description will be useful and acceptable to many of our readers.

It consists of an extension made to an ordinary cel-

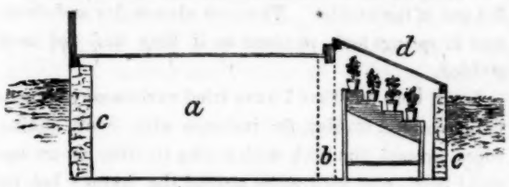


Fig. 1.

lar, on the south side, and covered with a sash like that of a common green house. Fig. 1, is a section, *a* being the cellar; *b*, the ordinary place of the south cellar wall, which is removed, leaving the space open

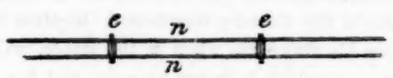


Fig. 2.

to the green-house extension; *c c* are the walls, and *d* the sash. Fig. 3 represents the external appearance of this contrivance, showing the sloping sash, and a portion of the cellar wall *w*, and siding of the building, *s*.

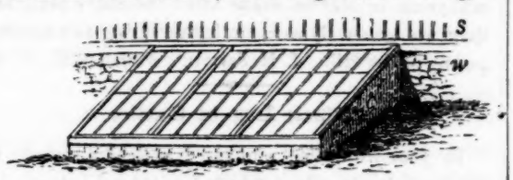


Fig 3.

In order to obviate the necessity of fire-heat, it is requisite that so large a surface of sash should be double-glazed. Fig. 2 exhibits a cross-section of this double sash, *e e* being the sash-bars, and *n n* the panes. The bars are made on *both* edges in the same form that ordinary sash is made on the glass side for the reception of the panes. We have had cross-bars made between these sash bars, like ordinary window-sash, so that the lower panes are set in as in common windows, the upper or lapping panes merely resting on these cross-bars. This arrangement makes the windows rather more secure from the passage of air, but is not absolutely necessary.

This structure being attached to an office where a fire above the cellar is not regularly kept up, sometimes needs a very small fire in a stove when the thermometer sinks to zero; but if connected with a dwelling constantly occupied, no artificial heat would be ever needed.

Production of Fruit Buds.

The Editor of the Journal of Agriculture has published a captious and foolish article in his columns, finding fault in a rude manner with a paragraph in a recent number of this paper. The article we allude to is signed "*A Learner*," and disputes the well known and generally admitted truth that a *free flow* of sap through a tree favors the production of leaf-buds, and of wood and leaves; and that whatever impedes its flow and causes its accumulation, favors the production of fruit buds. Every intelligent horticulturist is aware that when trees are young, the sap flows freely through all parts, and that a rapid growth of wood and leaves is the consequence, while fruit buds are sparingly produced. But when the tree becomes older, and the sap vessels more rigid, obstructing in some measure this free flow, fruit buds are more abundantly produced. The same result takes place when young trees are stunted by imperfect cultivation, or when the sap is impeded at the junction of the pear on quince stocks, or of the apple on paradise stocks. The increased fruitfulness produced by root-pruning, by the cultivation of dwarfs, by summer pinching, and by girdling, is known to all intelligent cultivators. It is certainly rather *queer* to see a paper which makes such high claims to science as the Journal of Agriculture, disputing facts such as these.

It is scarcely necessary to inform any of our readers, that the stunting or impeding process may be carried to excess, as it often is in old orchards, and that a greater number of fruit buds are produced, than can be properly developed; and hence the necessity of pruning and of enriching cultivation, to reduce the numbers of the fruit, and increase its size. An over-production of fruit buds will be desired by no good cultivator.

Fatting Hogs on Carrots and Meal.—The *Massachusetts Plowman* makes the following statement, which may be improved to some profitable result by some of the readers of this paper:—"We are using boiled carrots and meal for fatting our hogs, and think they make good food. They are probably worth more than potatoes for fatting, though actual trials are wanted to determine the question."

Heavy Cattle.—Several of the mammoth cattle which have been on exhibition near the Crystal Palace, New-York, during the past season, have recently been slaughtered. The dressed weight of several of them was as follows:—No. 1, 2,178 lbs.—No. 2, 2,066 lbs.—No. 3, 2,024 lbs.—No. 4, 1,930 lbs.—No. 5, 1,860 lbs.—No. 6, 2,008 lbs.—Nos. 7 and 8, "the twins," 1,800 and 1,880 lbs. Nine of them averaged 1,915 lbs.

Sheep Husbandry.

EDS. COUNTRY GENTLEMAN:—Thinking it might not be amiss, I avail myself of the present opportunity of making a statement of the profits of sheep husbandry, so far as I have been concerned for the last four years. And as hap-hazard statements and guess-work are not much to be relied on, I propose to give a few facts and figures. I have wintered on an average for the above four years eighty sheep, half to threefourths spanish Merino. The average weight of wool per head has been from three and a half to three and threefourths pounds per head; and the price per pound obtained, has been from thirty-two to fifty-two cents. The average receipts for wool and increase, taking the amount from actual sales and retaining eighty sheep for the winter stock, have been,

For three years of the last four, per head,.....	$1,75
For the last year,.....	2,63
Cost for wintering.	
100 lbs. hay por head,.....	40
1 peck of corn do.....	16
Pasturage do.....	50
Attendance and shearing per head.....	10
Total annual cost per head,.....	$1,16

Which deduct from above, leaves for profits for the three first years, fifty-nine cents—and for the last year one dollar and forty-seven cents per head. I should state that my sheep through the winter have had access to the straw stack, or they would have consumed more hay, and which I have not taken into account as the main object is to have it converted to manure.

My sheep feed from racks under shelter, and have access to pure water passing out and in at pleasure, having salt and ashes once a week. And here I should not omit to state that I have not lost a sheep with disease to my knowledge for the four years above named.

I do not publish this statement thinking the profits very great, for I think with better management much greater profits can be realized—in fact I know of flocks of three-fourths merino which yielded last year five pounds of wool per head. The greatest error that I committed, or that any wool grower can commit, is the disposing of some of the best ewes of the flock. And my advice now from experience is, if you are offered ten or even twenty dollars for your best ewe, don't take it.

Much difference of opinion exists in regard to the different breeds of sheep. So far as profit in wool is concerned I think the Spanish Merino the most valuable as producing more pounds of wool to the food consumed, than any other breed, and being in this section perfectly hardy. And now I would inquire—has there been any experiments correctly and systematically made in regard to the consumption of food by the different breeds, in comparison to number, weight of carcass, wool, mutton, &c.? If some one of our many able breeders, would institue a series of impartial experiments to this end, he might confer a lasting benefit to the farming interest. B. J. HARVEY. *Adrian, Mich., Dec.* 23, 1853.

Stabling Cows.

MR. TUCKER:—In the Country Gentleman of Dec. 8th, I notice the inquiry of "A Subscriber," as to how he can prevent his cows from lying in their manure when in the stable, saying he has tried various methods and all to no purpose, &c.

You have toid him that you find it necessary to have the stables cleaned twice a day, and then bed well at night. With due deference to your plan, will you allow me to give the plan I use which only requires one cleaning a day and no bedding, and which I learned several years ago from the late Mr. PHINNEY, of Lexington, through the columns of the Cultivator.

It is simply to confine my cows with stanchions upon a platform elevated four inches above the gutter immediately behind them.

The platform should be just wide enough for the cows to stand upon and no more, and for ordinary sized cows 4 feet 6 inches is all that is necessary.

My cows are stabled through the winter and never fed out of the stables. They are always dry and clean, and in spring look as clean as if they had not been stabled.

I will here say that I have tried various ways of confining cows in stables, for instance with bows, chains, ropes around the neck with a ring to slide on an upright post—also with ropes around the horns; but for convenience, economy, safety, and comfort of the animal, much prefer stanchions to all others I have ever used or seen. Yours respectfully, DAIRYMAN. *Richfield Springs, N. Y.*

MESSRS. EDITORS:—If "A Subscriber," who, in the 49th No. of the Country Gentleman, inquires how he can keep his cows clean when in the stable, will erect stanchions in which to fasten his cows, and lay a new floor of two inch plank, four feet five inches wide, upon his old one, the difficulty will be obviated, as the droppings from the cattle will fall below and behind the bed on which they lie. I have kept my cows for several years in stables made after the above plan, and they are generally as clean in the spring as when first put up in the fall. J. H. SMITH. *Fayetteville, N. Y.,*

Black Leg in Cattle.

In your November number, I noticed a remedy for the black leg in calves, which I doubt not is true; but I have pursued a different method from any given. I have practiced it with success. If the disease has gone too far before observed, the following remedy is not effectual. As soon as the first symptom of the disease makes its appearance, go through with the process of rubbing, punching and rolling, a thoroughly muscular action, with the animal, for fifteen or twenty minutes, and the cure is certainly effected without farther trouble. J. WINTHROP. *Montgomery, Nov.* 17.

☞ Breeders of horses are referred to the adverment of Mr. ANDREWS, in this paper, who, it will be seen, offers for sale or exchange, an imported Cleveland Bay horse. One of this breed, it will be remembered, was recently sold in Kentucky, for $2,800.

Product of Good Cows.

MESSRS. EDITORS—I have kept two cows the past year, of the common or native breed—one ten years old, and the other three years old last April. The heifer dropped her calf the first day of April last, and the old cow the 12th day of the same month. The cows are of medium size. Their food has been pasture in the summer only. In the fall the refuse of the garden, with some apples and pumpkins, and this feed is given them once a day during winter, while they are milked; while they go dry, nothing but hay or cornstalks is given. About the time they are coming in, carrots from half a bushel to three pecks a day are added to their hay for each cow, until they are turned to pasture. Without thinking them very extraordinary cows, we have kept a correct account of all the butter after it was salted and worked; and I find by footing up the account, it is 526 lbs. 10 oz.

I made a trial of each cow the first seven days in June; the old cow made 14 lbs. and the heifer 12 lbs. 5 oz. We have a constant family of six persons.

I have raised two good calves, and with the aid of 15 bushels of corn, have fattened two pigs, which were killed at 9 months and 20 days old, weighing each 289 and 297 lbs.

My advice to farmers is to feed their apples, in preference to making cider to sell or to drink—to pigs or fat cattle all they will eat, and to milch cows half a bushel per day. Yours. A. S. Moss. *Fredonia, January* 3, 1854.

Winter Food for Milch Cows.

MESSRS. EDITORS—We are engaged in this vicinity mostly in making milk for the New-York market. Anything on the best method of doing this will always make us glad to see the Cultivator, and we should be glad to have you give us the best plan for feeding milch cows in fall and winter. W. B. RICHARDS.

As a general rule, all succulent food, or such as contains large quantities of water, is best for the production of *large quantities* of milk in winter. Most field-roots contain about seven-eighths to nine-tenths water; and these are therfore milk-producers. Bran, largely mixed with water, operates in a similar manner. Still-fed cows are often learned to drink enormous quantities of "slop," and to yield large milkings of a poor, washy unhealthy product. Carrots and cornstalks (the latter being usually quite a juicy food, when the stalks themselves are consumed as when small grown by being thickly sown,) increase the quantity, but still more the richness of winter milk.

For the particular purpose of winter marketing, we hope some who have had experience will give us more particular and accurate details, as but little has been ever given to the public on this subject.

SHELTER FOR SHEEP.—The Michigan Farmer says that Lewis Cone, (well known as one of the best farmers of Michigan,) out of a flock of about one hundred and seventy sheep, has lost only one in four years. The secret consists in general good management, and especially in keeping his sheep in close quarters during winter, having the stable well littered and always dry.

Culture of Indian Corn.

L. TUCKER—With your permission I propose to give the readers of the Country Gentleman some facts in relation to the culture of Indian corn, as developed in the cultivation of a field of five acres, by myself the present season.

The land was a clayey alluvion, subject to overflow yearly at the time of spring freshets, and had been cropped with grass for a long series of years without interruption, until the previous season, when a part was planted to potatoes, part to corn, part to oats, part to buckwheat, and one-third remained in grass. Of the sward part, about one-half was plowed in the fall and the remainder in the spring; it was all evenly manured at the rate of thirty two-horse loads of stable manure per acre, and plowed about the 15th of May. The ground was all very mellow, and was hoed twice, after passing through it with the cultivator. The crop was cut up at the root as soon as sufficiently glazed, and housed in October. The season was characterized by one of the most severe drouths known for many years, and yet, owing to the character of the soil, the corn leaves never once rolled; but the accompanying swarms of grasshoppers seemed intent on destroying every green thing; like Milton's sunshine, were on "herb, tree, fruit and flower," and destroyed equal to one and a half acres of this crop.

Three hundred and fifty bushels of ears were husked from the lot, not a large crop by any means, but perhaps it is as well to have reports of average crops as of those uncommon and extraordinary large crops, which, "like angel's visits, are few and far between."

The corn on that part planted to potatoes the previous season, was the best, strongest and most luxuriant in appearance, at all stages of its growth. That on the sward plowed in the spring, ranked next, and although of smaller growth was nearly as heavily eared. That part following the corn of the previous season was next in quantity per acre, but falling considerably short of the two plats already mentioned, and nearly equalled by the piece sowed to oats the previous year. That on the ground plowed in the fall was next in order, badly eaten by worms, and in no respect to be compared with that on the sward plowed in the spring. Lastly, that on the buckwheat ground, which was so situated that the crops of the previous year along side it were, on one side grass, on one side potatoes, and the third side corn, yet from the time the corn came up on this plat to the time of harvest, it was of a pale, sickly yellow color, and very small size, while on the three sides aforesaid, the corn was dark green, rank and luxuriant. The yield from this plat was twenty bushels of *nubbins* per acre. Whence I contend that of all *common crops*, buckwheat is the worst to precede corn, although in this case it left the ground in the best tilth of any part of the field. It has been supposed that this crop drew a large portion of its nourishment from the atmosphere, and consequently was not an exhausting crop. From several experiments, I am induced to place it among our most exhausting, or most

poisonous crops, and from the complaints of some of your correspondents, conclude that others may embrace the same opinion. Is it from its exhaustion of the potash in soils not liberally supplied with this substance, or is it caused by poisonous qualities thrown off by the roots, and which have a deleterious influence on some of the organic elements of the soil? Many of our *old farmers* refuse to raise this crop, although it may be done at times of comparative leisure, for the reason, as they say, *that it is poisonous to the land.* Let us have scientific and practical agriculture *come to terms.* I would also add, on the field were raised 50 two-horse loads of very nice, yellow pumpkins. VERMONTER. *West Pawlet.*

The Housewife.

PRESERVING EGGS.—The newspapers are constantly furnished with new rules for preserving eggs. One of the latest is the following: "Wrap each egg closely in a piece of newspaper, twisting it tightly to keep out the air, place them in layers in a box with the small ends down, and set them where they will be cool without freezing." We have no doubt this is a good way, but it would be nearly as difficult to exclude air by printing paper as by gauze or net work, paper being a very porous substance. *The great secret of success in preserving eggs is to keep the small ends downwards,* the air-bubble which occupies that end supporting the weight of the yolk, and preventing its adhesion to the shell. If the egg is laid on its side, this adhesion will soon take place, and the egg will be spoiled, no matter however completely excluded from the air. Eggs preserved as above, or by packing in salt, or oats, or on shelves purposely made for them by boring with large auger holes, so as to hold the egg upright, without allowing it to pass through, are all good ways, *provided the small end is kept downwards.* There are other requisits that should not be forgotten; for example, the eggs should be quite fresh when packed away, and especial care should be taken that none are cracked, as these soon spoil, and communicate the fermentation to the others if they are in contact or close proximity. Packing in salt is a good way, but it is not so convenient as the others, because the salt is apt to become hardened, and to adhere to the shells. A cool place is indispensible.

SALTING BEEF FOR SUMMER USE.—For 100 lbs. beef take 16 quarts fine Aston sack salt and 4 ounces saltpeter; cut the meat and pack it in edgewise, after rubbing the pieces all over with the salt; and after a layer is completed, take an axe or mall, and pound down solid. Then sprinkle on a little saltpeter and fill up all interstices with salt, and so on until the cask is full. Those who do not like saltpetre may omit it without injury to the meat.

I have salted my beef in this way for fifteen years. It needs no soaking before boiling, and will be tender and sweet the year round. By this way of salting, it makes its own brine, and never wants repacking—nor the brine scalding. If the brine should not cover it in the spring, sufficient may be added for that purpose. A. WANZER. *Sherman, Ct.*

TO MAKE PUMPKIN OR SQUASH PIES.—Stew the pumpkin or squash as dry as possible, without burning; rub it through a cullender or sieve. To a pint bowl full of the sifted pumpkin, add three eggs, one quart of milk; if you live in the country call it a pint of milk and a pint of cream, a small teacup full of sugar, half a teaspoon full of salt, nutmeg, cinnamon or ginger to the taste. The above quantities will make two large sized *good* pies, but if squash is substituted you may dispense with one of the eggs, and half the sugar and have *better* pies; by retaining them and adding two spoonfulls of melted butter, you may have the best pies.

The cooking books prescribe more eggs, to which there is no objection if the quantity of milk is increased accordingly; I have however eaten tolerably good pumpkin pies without any eggs at all.—A HOUSEKEEPER.

Manufacture of Maple Sugar.

MR. TUCKER—On receiving the last number of the Cultivator, I read a notice of the sample of sugar and molasses I sent you. On my return home, I found I was mistaken as to where we obtained the receipt. It was given us by the Hon. J. S. PETTIBONE of this town, and was taken by him from some agricultural work or from a Patent Office report, he is not certain which, but thinks it was taken from the report.

The specimen of loaf I sent you, was merely some made for family use, as we did not design making any for market. The molasses was made from syrup, of which we made about 8 hundred pounds of sugar, or its equivalent in molasses. We have but small works in which we make sugar, from 225 to 240 trees; generally make from 10 to 15 hundred pounds, sometimes less.

I send you the receipt as we make it. Scald the tubs thoroughly in lime water before setting them out, and also when they are taken in, and as often as they may become in the least sour. Boil the sap in a sheet iron pan and caldron, under shelter. When the sap is boiled to syrup, strain it through flannel, and usually let it settle over night. To cleanse syrup, for 50 pounds of sugar, take the whites of 3 eggs beaten to a froth, a teaspoonful of saleratus dissolved in a pint of milk, stir it into the syrup while it is cold, and keep a slow fire until the scum is sufficiently raised to take off; boil down to tub sugar; pour it into the tubs while warm; when it is cold, bore holes in the bottom of the tubs; take white flanel cloths, and wring out in cold water and place upon the top of the sugar, and set it to drain. The cloths should be wet as often as once a day. After a short time, the specks of cleansing remaining in the sugar, and coloring matter, will begin to rise to the top. Take a dry flannel cloth and wipe them from the sugar as often as the cloths are wet, before laying them on.

For loaf sugar the procees is the same, except that it is taken from the tubs, melted and run into tin cans, and drained again, at the same time keeping the flannel cloths on the top of it. WALTER R. DEAN. *Factory Point, Dec. 19th,* 1853.

The sugar and molasses sent us by our correspondent, were the best samples we have ever seen.

The Country Gentleman.

FRIENDS OF IMPROVEMENT!—The COUNTRY GENMAN is pledged to you, and, entering upon a New Year, solicits your aid and co-operation. We are engaged in a common work,—with pen and plow we are promoting a common end; shall we not go heart and hand together? We furnish you every week with a rich freight of useful information, collected from diverse sources, still all tending to that one great purpose—*Progress in Agriculture, Horticulture and Social Life.*

But remembering the injunction, "Let another praise thee, and not thine own mouth," we copy the following from the *Windsor (Vt.) Chronicle:*—

THE COUNTRY GENTLEMAN.—This admirable paper, conducted and published by Luther Tucker, Esq., of Albany, a tried favorite of the farmers of Vermont, has closed its first year with the honor of having met every reasonable expectation of subscribers, and has established a character of unsurpassed excellence as an agricultural, horticultural and family journal, with admirably filled pages devoted to miscellany and general news.

May we not hope that those who are pleased with us, will afford us some material token of interest in our prosperity. Subscribers are coming in rapidly, and we shall not long be able to supply the back numbers of the present volume. Now is the time to solicit friends and neighbors to make our acquaintance, and we promise our best exertions that no one shall regret having invited the COUNTRY GENTLEMAN to his Farm and Fireside.

☞ Three copies will be sent for $5.00

WHAT OTHERS THINK OF US.—The approbation of those for whose interests we labor, is always gratifying. From the beginning, we proposed to ourselves a higher standard of excellence, both in our Agricultural and Literary Department, than was in vogue among papers which aim exclusively at catching the popular eye and ear, and we were confident that the truest and most lasting popularity was to be attained only by devoting our columns to what was really useful and improving. That we have rightly judged we have daily assurance from all parts of the country.

One correspondent writes us—"I cannot refrain from expressing to you the great satisfaction I have had in reading the COUNTRY GENTLEMAN. I consider it the most valuable family paper for the Farmer that I know of, ahd I cannot doubt but your list of subscribers will steadily, if not rapidly increase. If I can influence any of my neighbors to subscribe to it, I consider I am doing them and their friends a material service.

☞ Will those who contemplate getting up a club for the COUNTRY GENTLEMAN please to send in their orders early, so that we may supply the back numbers. It is important to commence with the volume, for every paper is worth preserving, and twenty-six of them bound make a very neat and valuable book.

☞ We want Agents for the COUNTRY GENTLEMAN and THE CULTIVATOR in every town throughout the country. Post-masters and others disposed to act as local agents, will be supplied with terms, samples, &c., on application.

Portable Cider Mills.

In a late No. of the Country Gentleman you speak of a portable cider mill. If you learn anything further about it, let me know it, and whether it will be in New York for sale. Also which is the best and cheapest in the end for a man to buy, the one you had spoken of before from Penn., and now in New York for sale, or the one you last spoke about. We need such mills in our neighborhood. Yours truly, D. B. RICHARDS.

Will some of our correspondents who have tried the above, please give the results of their experience?

Churns.

MR. TUCKER—As I am commencing the farming business, and wishing to procure a good churn, I should like to know what kind is the best and easiest managed, all things considered, for a dairy of some six or eight cows—where obtained, likewise the price, and by so doing you will confer a great favor on me. WILLIAM WILLIAMSON. *Camden, N. Y.*

We have found Kendall's churn, consisting of a panel and rotary dasher, best for a small dairy, being nearly as simple as the common dasher churn, and working with far less labor. The cost of such a one as our correspondent desires, would be three or three and a half dollars. These churns are sold by EMERY & Co., of Albany, and probably at most other agricultural stores.

Removing Old Paint.

MESSRS. EDITORS—Please inform me how to remove paint from a brick wall. The paint was washed from the window sash and frame, by rains. Is there some chemical agent or something to neutralize white lead and oily matter? AN AGENT. *Berks Co., Pa.,*

When paint becomes hardened by several years' exposure, it is not easily affected by any application. We have never had occasion for any experiments of the kind, but recommend, as promising decidedly the best, a strong and perhaps hot solution of the freshest caustic potash, applied with a swab.

United States' Ag. Society.

The Second Annual Meeting of the UNITED STATES' AGRICULTURAL SOCIETY, will be held at WASHINGTON, D. C., on Wednesday, February 22d, 1854.

Among the objects of the Association are the following:

The acquisition and dissemination of the best experience in the Science of Agriculture;—

The union of the men who desire to advance to its legitimate rank, this most important of all human pursuits;—and

The increase and extension throughout our country of a more cordial spirit of intercourse between the friends of Agriculture, by whose countenance and cooperation this Society shall be elevated to a position of honor and usefulness worthy of its national character.

Business of importance will come before the meeting. A new election of officers is to be made, and in which every State and Territory is to be represented.

Applications will be laid before the Society for the holding of National Exhibitions in different parts of the Union.

Delegations are respectfully solicited from all the Agricultural Societies in the country, and the attendance of all Agriculturists, who may find it convenient to honor the occasion with their presence.

MARSHALL P. WILDER, *Pres't.*
WILLIAM S. KING, *Rec. Sec'y*

Carrot Butter.

A correspondent of the Dollar Newspaper gives a mode of coloring butter yellow, consisting substantially of the application of a liquid at churning, made by grating yellow carrots, and after soaking in half their bulk of milk or water over night, straining through a cloth. This, we are assured, will make it as yellow as October butter, and with an agreeable flavor. Customers, who buy butter of the manufacturer who furnishes the communication, much prefer this to any other. Some of our readers may think this method worthy of trial; others will prefer a modification, which we have often tried with great success. This modification differs in one particular only, yet has several advantages. The point of difference is in the *time* of applying the carrots;—that is, instead of doing it at the commencement of the churning, by introducing them into the *churn*, we apply them about two or three days sooner by introducing them into the *cow*. This modification has several advantages, namely, saving the labor of grating the carrots; furnishing animal instead of vegetable butter; and nourishing the cow into the bargain.

The Effects of Drainage on Tillage.

MR. TUCKER—Last spring I concluded to plow a clayey field only once for wheat, and that after harvest. The field contained about 40 acres. Previous to draining, it was one of my wetest fields, and in dry weather, even in April or May, was very hard to plow, often having to get the coulters and shares sharpened every day, when we used wrought iron shares. I bought oxen in spring so that I could put a yoke or oxen and a pair of horses to each plow, and owing to the great drouth before, during, and after harvest, I got a large plow made by Messrs. Newcomb & Richardson, of Waterloo, the makers of the Seneca County Plow, so that I could put two or more yokes of cattle and a pair of horses to it if necessary. Immediately after harvest the day of commencement came, when we started for the field, oxen and drivers, plowmen and horses; and besides new shares on the plows, we took 16 other new shares along, expecting to have to change every day. When we got to the field, I had one man put a pair of horses before the large plow, and try to open the land with a shallow furrow. He went 70 rods away and back, without ever a stop, except when the clover choked the plow. I then had the plow put down to eight inches deep, and he went round apparently with the same ease. He then went round at nearly ten inches deep, and no trouble at all. His furrow was about ten inches deep and fourteen wide, and laid as perfect as it could be. I then had one yoke of oxen put behind my smallest horses, and a pair of horses before each of the other plows, and they plowed the field with perfect ease, and only changed shares twice. I never was more agreeably surprised in my life—in fact had they been plowing up gold dust as they do in California, I should have been no more pleased.

Although the field was undoubtedly plowed at the rate of nine inches deep, yet the clover roots went deeper, and the land plowed up as mellow as any loam; whereas had it not been drained it would have broke up in lumps as large as the heads of horses or oxen.

A few years ago, a neighbor broke up a field about the same season of the year and similar land, but not drained; and after cultivating, rolling and harrowing, he had to employ men and mallets to break the lumps before he could get mould to cover the seed; and after all he did not get the third of a crop of either wheat or straw. My wheat looks as well as any I ever saw, and I doubt not but it will be a good crop.

With regard to NEWCOMB & RICHARDSON'S "Seneca County Plow," I think them the best I have ever used. They are of light draught and do their work perfectly. Try them, brother farmers, and if they don't please you, lay the blame to me. They are manufactured at Waterloo, Seneca co. I procured two of them last year, and will get other two this spring. Yours truly, JOHN JOHNSTON. *Near Geneva, Jan.*

Plaster for Peas.

MESSRS. EDITORS—At the request of some of my friends, I send you the result of an experiment I made last season in the use of plaster.

I have used plaster for fifteen years, on all sorts of grain, potatoes, &c., upon all the kinds of soil I possess. But thinking that I derived no benefit from its use on grains, for the last ten years I have only applied it to grass and peas.

I belong to an Agricultural Society, as every farmer should do, and of course intend my crops for premiums. When the committee examined them, I called their attention to the difference in the different ridges of my pea crop—the parts where plaster was sown, exhibiting a dark green and thrifty appearance, while those ridges without plaster, were pale and unthrifty. In harvesting, I cut two ridges of equal size—one plastered, the other not—and threshed them separately. The one plastered yielded one bushel and eighteen quarts, while the unplastered one produced two quarts less than a bushel. JOHN BORROWDALE. *Lacole, C. E.*

Vermont State Agricultural Society.

The annual meeting was held at Middlebury, pursuant to notice, on the 5th day of January, 1854. The president in the chair.

The financial report was read, by which it appeared that there was a balance in the Treasury of $1,149.

Hon. E. N. Briggs, from the committee to nominate officers, reported the following nominations:

President, Frederick Holbrook; *Vice-Presidents*, Edwin Hammond, J. W. Colburn, H. B. Stacy, E. B. Chase; *Cor. Sec.*, J. A. Beckwith; *Rec. Sec.*, Wm. Weston; *Treasurer*, Edward Seymour; *Auditor*, E. P. Walton; *Directors*, B. B. Newton, Geo T. Hodges, J. W. Vail, Henry Keyes, John Gregory, A. L. Bingham, John Howe, Jr., O. Wood, Geo. Campbell; and, on ballot, the nominees were elected.

A resolution of encouragement was introduced by James M. Slade, Esq., and passed. Speeches were made by Messrs Chase, Stacy, Newton, Hodges, Kimball, Stockwell and Slade. The Society adjourned sine die. F. HOLBROOK, *President.*

J. A. BECKWITH, *Secretary.*

Notes for the Month.

MEETINGS OF SOCIETIES.

Annual Meeting and Winter Exhibition of *New-York State Ag. Society*, at Albany, Feb. 7th, 8th and 9th.

The *New-York State Poultry Society* hold an Exhibition at the same time and place.

Annual Meeting of the *United States Ag. Society*, at Washington, Feb. 22.

Exhibition of *National Poultry Society*, at New-York, commencing Feb. 13th.

Annual Meeting and Winter Exhibition of the *Albany and Rensselaer Hort. Society*, Wednesday, Feb. 22.

To Our Readers.

We present our readers this month with a variety and amount of matter which has never, in the history of agricultural journalism, been excelled in value. From the first page to the last, every article will be found freighted with instruction, suggestion and the results of practical experience. We say this not as mere bragadocio, but because we are confident that the careful reading of the contents will convince any one of the truthfulness of the assertion. We are giving the farmer a greater amount of agricultural and horticultural information for FOUR CENTS, than can be obtained in any other form for ten times that sum. In this day of cheap literature, we are endeavoring to furnish truly valuable matter at a rate "cheaper than the cheapest." We are sparing neither labor nor expense to render THE CULTIVATOR as reliable and useful as it was when we received double our present price, and to make it in all respects worthy the confidence and support of the farming community, and fully up to the times. If twelve such numbers as this are not worth many times FIFTY CENTS to the farmer, it must be his own fault. At this exceedingly low rate thousands of copies ought to be circulated, and we cannot conceive how a public-spirited farmer can do his town and the cause of agricultural progress greater service than by getting up a club for the CULTIVATOR.

If the contents of this number meet the approval of our readers, may we not ask the favor of each one to hand it to his neighbor, or to send us his address, so that we can send a specimen copy. With scarcely an exception, every one who writes for a specimen number becomes a subscriber, and we shall be much obliged to any one who will send us the names of those whom they think will be pleased with a journal of the character of the CULTIVATOR. Now is the time to act. As the paper is stereotyped, we can supply orders to any extent. Who will send us the largest list before our next issue?

MONTGOMERY CO. (O.) AG. SOCIETY.—We have been favored by the Secretary of this Society, Mr. O. KITTRIDGE, with its list of prizes to be awarded at its next Fair, to be held at Dayton, on the 3d and 4th of Oct. We notice that its premiums are all to be paid in plate, medals, and books and papers on rural affairs—among the latter were included several copies of the COUNTRY GENTLEMAN.

POSTAGE OF THE CULTIVATOR.—One would suppose that the present post-office law was so explicit that there could be no mistake made about the postage of the Cultivator; but we learn that occasionally a postmaster charges 12 cents a year, while the law rates it at only *six cents a year* to any part of the United States.

POSTAGE TO THE BRITISH PROVINCES.—The United States postage on our papers sent to Canada, New Brunswick, Nova Scotia, &c., and which has to be pre-paid here, is 26 cents a year on the Country Gentleman, and 6 cents on the Cultivator, and these sums should be added to the price of all papers ordered by Agents in those Provinces.

☞ There are a great number of Post Offices on our mail books to which we send only a single copy. A little exertion on the part of the individual might add a few names.

PLASTER ON PASTURES.—A subscriber in Ohio writes us as follows:—"I find the Cultivator of great interest and no small profit. The pasture part of my lot had got thin from constant feeding, and from an article in the Cultivator, I was induced to give it a sowing of plaster in April or May, and was surprised to find to what an extent the grass thickened up, increasing the feed fully one-half. This is only one of many instances of profit to be derived from your journal."

THE PRAIRIE FARMER.—Our correspodent, "H," who wishes to "become more acquainted with western agriculture, and western life," and who inquires if there is a good agricultural paper published in Illinois," has only to address a letter (with $1 enclosed) to the Editors of the Prairie Farmer, Chicago, Ill., to secure the reception of one of the best agricultural journals in the country, east or west.

HOVEY'S MAGAZINE OF HORTICULTURE.—This old and standard work keeps pace with the progress of the times. It has now been published nineteen years, and its volumes furnish the best history of the advancement of horticulture, during that period, in this country, which can be found. No horticultural library can be considered complete without them. The 20th volume was commenced with the Jan. No. Terms, $2 a year.

WEANING COLTS.—P. P. P., of Columbia X Roads, says, "I find it easier, less trouble, and quicker, in weaning colts, to put a headstall upon their heads, with the nose-piece well filled with long, sharpened nails to prevent their sucking, and then let them go with the mare as before. The mare should be milked the same as when separated. The colt will do better because he will spend his time in feeding instead of worrying.

BUSHEL AND ACRE.—Will you inform me through the Cultivator or otherwise, the difference there is in the United States bushel and the English—also, the difference in the acre of the two countries. WM. ARKELL. *Canajoharie, Jan.* 3, 1854.

The standard bushel of the United States is the same as the "Winchester bushel," which was the standard in England from the time of Henry VII. to

1826, and contains 2,150.4 cubic inches. The present standard in England, is the "Imperial bushel," which contains 2,218.192 cubic inches, being, within a fraction of, 68 cubic inches larger than that of the United States. The *acre* is the same in both countries.

WOODEN BLOCKS IN WALLS.—How will blocks of wood of any size laid in water lime cement, like square stone, answer for cellar walls or underpinning to any building? JAS. H. MATTISON.

Blocks of wood built in on the inner side of the stone walls of buildings, whether with common or water lime, will last hundreds of years, provided they are excluded from dampness. In *damp* cellars, they would be more apt to decay, unless of very durable wood, but in most cases would be very durable.

MOWING MACHINES.—Will you please to inform me which is the best and the cheapest Mowing Machines, and where they can be bought. D. C. S. *Middletown, Ct.*

The best, undoubtedly, is Ketchum's; the price, $110. For further information, address H. C. WHITE & Co., of Buffalo.

OSIER WILLOW—*X. Udall*, Wolcott, Vt.—You will find your questions answered on page 328, last vol. of Country Gentleman. See also pages 66, 114, 180 and 242, of the first vol., for additional information on the subject.

SPAYING COWS—*A Subscriber*.—Address WILLIAM CARTER, East-Bloomfield, N. Y.

POULTRY.—*J. T.*, Litchfield county, Conn., inquires for the best variety of hens for laying—their color, quality of flesh, general size and habits—how many eggs fifty or sixty would each lay per year—where they can be had, and at what prices. Will some of our poultry fanciers answer?

FINE PIGS.—A friend at Coxsackie, sends us the weight of a litter of pigs recently slaughtered by ROSWELL REED of that place. They were nine months old, and weighed 400, 382, 364, 324 and 312 lbs. respectively, making a total for the five, of 1,782 lbs.

DUCKS—J. Y., Memphis, Tenn.—We know of no such Ducks as you inquire for, in this vicinity. Perhaps you can procure them by addressing Mr. J. S. CLARK, Throopsville, Cayuga Co., N. Y.

TRAINING STEERS.—We cannot understand "I. FORGOTS'" directions. How are the steers to be confined and where? Are they to be placed between the wheels and to go round in a circle?

HEAVY SHEEP.—A London correspondent of the National Intelligencer says he had heard much of the great weight to which sheep are sometimes fed in England, and his belief was really staggered by some of the reports; but he saw in one butcher's shop, four sheep, which had been raised and fed in Gloucestershire, whose weight when slaughtered and dressed for sale as mutton was 250, 245, 216, and 197 pounds respectively. A shoulder, cut fairly from the largest, weighed 42½ lbs. Two Lincolnshire sheep in the same shop weighed 216 and 201 pounds respectively.

THE GENESEE FARMER—A QUEER BLUNDER.—The American Agriculturist copies from the Genesee Farmer the claim of the latter paper to the paternity of several of of our best rural periodicals, and among the rest to that of the Albany Cultivator itself. Those papers appear to understand, and all their readers certainly will, that the *present* Genesee Farmer, and the present Albany Cultivator are intended in all these remarks.

The Agriculturist thinks that DR. LEE, the proprietor of the Farmer, may "be allowed a little self-complacent boasting"—to which we must add the remark of a well known writer, "but if thou boast, thou bearest not the root, but the root thee;" for it so happens that the present proprietor of the Cultivator himself originated and published the Genesee Farmer for nine years, and afterwards upon the death of Judge Buel, merged it in the Cultivator, started at a later day. The Genesee Farmer was not sold out to any one; but after its union with the Cultivator, another and TOTALLY DISTINCT paper was commenced at Rochester, called the NEW *Genesee Farmer*, which openly disclaimed at its commencement all attempts to assume any benefit from the Genesee Farmer or its name, but commenced entirely new. After some years, the distinctive epithet "*new*," was dropped, which now our friends abovenamed seem entirely to have forgotten. We do not mean to say that the son claims the paternity of the parent, for the two papers,—the Genesee Farmer which is called the "stepping stone to the Cultivator," &c., and the present Genesee Farmer, have no relationship, except that the latter has "borrowed" the name of the former. We mention these facts merely to correct an obvious error, with entirely friendly feelings to the Farmer and Agriculturist, who will, we doubt not, now recollect these facts.

GUANO AT THE SOUTH.—Our readers are no doubt aware that guano has been for some years very successfully used in Maryland and Virginia, more particularly for the wheat crop. The American Farmer says that in some districts, it has so increased the fertility of the land, and its consequent products and profits, as to increase the value of land one hundred per cent. It appears to have produced the most striking results on the old worn-out lands of those states. Lands producing only six bushels of wheat to the acre, and which could not be sold for five, have, by means of an annual application of four hundred pounds of guano, yielded as heavy crops as lands selling at fifty to seventy-five dollars per acre.

PREMIUM FOR A SEEDLING GRAPE.— At a meeting of the New-York Hort. Society, Mr. P. B. MEAD placed at the disposal of the Society a goblet—value $25—as a premium for a new seedling grape, to be competed for at the September exhibition. His object in doing so is to encourage the growth of native fruits, and as an example, with the hope that some of the wealthy merchants of that vicinity might be induced to patronize this branch of industry as did those of Boston, Philadelphia, and other cities.

POISON IN GUANO.—A subscriber at Newark, N. J., sends us the following, which he translated from a late Dutch paper: "One of the custom officers stationed at Kaldenkirchen, near Venlo, Holland, had a slight wound in the fore finger, caused by a thorn in shearing a hedge. The wound was nearly healed, when, receiving some guano, he was so incautious as to work the stuff with bare hands. That was at 3 o'clock P. M.—at 4, the whole hand was swollen—at 5, the arm to the elbow—at 6, the whole arm and a part of the chest were in a state of high inflammation, and at 11 o'clock the same day, the poor wretch was a corpse, notwithstanding the aid of two skillful physicians. It appears, therefore, that the guano contains some very venomous particles, and that people cannot be too careful in using that stuff."

AMERICAN AGRICULTURIST *vs.* HUMBUGS.—We are glad to see our cotemporaries coming out in favor of a high order of literature, and taking a bold stand on the side of right and truth. The AMERICAN AGRICULTURIST, in a most capital announcement for the coming year, says "that the humbugs and nostrums afloat in the community will be tried by reliable scientific rules, and their worthlessness exposed."

This is well, just as it should be; and as we are a little in the same line of business, we beg leave to call its attention to the following item which we take from the Agriculturist's own advertisement, and request it to expose the humbug among the first. The Publishers say that the Editors "will be assisted by Prof. NASH, who has been for a long time one of the most successful farmers of New-England, and is now Agricultural Professor of Amherst College."

Now Prof. NASH is engaged as a contributor to the COUNTRY GENTLEMAN, and assures us that his name is announced without his permission in connection with the Agriculturist, he having only replied to the solicition of the Publishers that "*perhaps* he would furnish an article or two."

GENERAL INDEX TO THE CULTIVATOR.—*Mr. Tucker:* I have, as you know, called your attention to the subject of getting up an index for all the back volumes of the Cultivator. Such an Index, if prepared in a suitable manner, would be of great value, not only to those who possess the whole work, but to all who read much upon rural subjects. D. B. *Waterford, N. Y.*

To prepare an Index to the twenty volumes of THE CULTIVATOR now published, in such a manner as to make it really valuable, would require a vast amount of labor—far more than we should be willing to undertake, even were the prospect of the demand for such a work more favorable than at present. The other suggestion of our friend, in relation to a book, we may hereafter, very probably, carry into effect.

GOOD PIGS.—Mr. T. H. AUSTIN of New-Haven, Oswego county, recently slaughtered seven pigs of one litter, 16 months old, which weighed as follows—400, 404, 404, 416, 476, 511, and 557 pounds—total 3,168 lbs. This shows that Mr. A. knows how to make pork.

GREAT YIELD OF BARLEY.—The *Pacific*, a San Francisco paper, states that Sweet & Keatings have raised on their farm at the Salinas Plains, Monterey county, one hundred acres of barley, an average acre of which being measured and weighed, yielded 7,473 lbs.; which, at 50 lbs. per bushel, gives 149 23-50 bushels per acre. That portion of the crop of forty-five acres, from which the sample was taken, was sown the 20th of April, 1853; amount of seed, 125 lbs. to the acre. This is believed to be a greater yield by at least forty bushels, than has heretofore been made public.

VIRGINIA STATE AG. SOCIETY.—We recently alluded to the eminent success which crowned the labors of this Society at its late State Fair; and for which, as we learn from a friend in Virginia, they were indebted, mainly, to the untiring zeal and energy of Gen. WM. H. RICHARDSON, of Richmond, who has acted the past year as its general agent, and to whom it is proposed to "present some solid and substantial token of gratitude, for his invaluable services in that capacity."

NEW-YORK AG. COLLEGE.—In answer to the inquiry of "A Subscriber," at Farmington, Conn., we would state that at a meeting of the Trustees, held in this city last week, it was resolved not to give up the effort to carry this projected institution into operation. Mr. DELAFIELD's death was a severe loss to the corporation—one which, it was thought by many, would prove fatal to the enterprise; but it will, we trust, only delay it for a season

OHIO STATE BOARD OF AGRICULTURE.—At the annual meeting of delegates from county societies, recently held at Columbus, JAMES L. COX, of Muskingum; R. W. MUSGRAVE, of Crawford; JOS. SULLIVANT, of Franklin; BUCKLEY SLEDMAN, of Cuyahoga; T. R. GRIER, of Hamilton, were elected members of the Board to supply the place of others whose terms had expired. The new Board subsequently met, and organized and appointed the following officers for the ensuing year.

President, R. W. MUSGRAVE, Sulphur Springs; *Treasurer*, JOSEPH SULLIVANT, Columbus; *Recording Sec'y*, JAS. L. COX, Zanesville; *Corresponding Sec'y*, GEO. SPRAGUE, Tiffin.

VARIABLE WHEAT YEARS.—The North British Agriculturist states some facts showing the variable seasons at East Lothian, by which we perceive that notwithstanding the celebrity of that region for heavy crops, there has been more failures there than farmers would expect in the wheat regions of this country. In the years 1827—8, 9, 30, and 31, the average produce did not exceed 15 bushels per acre, in consequence of mildew and the wheat midge. In 1832, 3, 4, 5, and 6, the produce on many farms was 44 bushels per acre, and the average 35 bushels.

FANCY RABBITS.—Those wishing to procure fancy lop-eared Rabbits, are referred to the advertisement of S. V. C. VAN RENSSELAER. They are raised from Imported Stock, and are said to be very fine.

Evergreen and Deciduous Trees.

HENRY LITTLE & CO.. of Bangor, Maine, will furnish Arbor Vitæ, Balsam Fir, Spruce, Hemlock, and other trees, and forward them by steamers or railroads to any part of the United States, at their usual prices.

Jan. 20—w3ms

Grafts of all Superior Fruits,

IN any quantity; cuttings of Currants, Gooseberries and Raspberries; cuttings of all Ornamental Trees and Shrubs that can be propagated by this mode.

50,000 Scions of the finest Osiers, at moderate rates.

75,000 Cuttings of Angers Quince, sure to grow, and may be budded to pears the first season.

20,000 Isabella, Catawba, and Clinton Grapes, and of all the finest foreign varieties.

The above can be supplied during the winter and in the spring. Every variety of Fruit and Ornamental Trees and Plants, for which contracts will be made now at reduced rates. WM. R. PRINCE & CO.,

Linnean Gardens and Nurseries, Flushing, N. Y.

JOHN SAUL,

Washington City, District Columbia,

HAS to offer to his patrons and the public the subjoined list of Nursery Stock. The whole is of the finest description, in the best order, and will be sold reasonable:

200 Cedrus Africana, 6 to 9 and 12 to 18 inches
1,000 Cedrus deodara, 1 year seedlings,
500 do do 6 to 9 and 12 to 18 inches.
200 do do 2 to 3 feet.
500 Funebral Cypress, 4 to 6 and 6 to 9 and 9 to 12 inches.
1,000 Junipers, English, 6 inches.
1,000 do do 1 to 2 and 2 to 3 feet.
1,000 Pinus excelsa, 1 year seedlings.
500 do 9 to 12 and 12 to 24 inches.
8,000 Scotch Fir, 8 to 9 inches.
200,000 Silver Fir, 4 to 5 and 6 to 7 inches.
50,000 do 7 to 8 and 8 to 9 inches.
10,000 do 1 to 2 and 2 to 3 feet.
2,000 Silver Webbiana, 4 to 5 and 5 to 6 inches.
500,000 Norway Spruce, 4 to 6 inches,
500,000 do do 6 to 8 inches.
50,000 do do 9 to 12 inches.
10,000 do do 1 to 2 and 2 to 3 feet.
3,000 English Yews, 6 to 9 and 9 to 12 inches.
1,000 Irish do 1 to 2 feet.
10,000 Larch, European, 4 to 6 inches.
20,000 do do 1 to 1½ and 2 to 3 and 3 to 4 feet.
3,000 Red Dutch and Grape Currants.
2,000 Victoria or Houghton Castle do.
2,000 White Dutch and Grape do.
2,000 Black Naples do.
10,000 Gooseberries, best Lancashire varieties.
5,000 Fastolff Raspberries.
4,000 Red and White Antwerp, Magnum Bonum do.
2,000 Plums, all the leading varieties, strong.
80,000 Pear Stocks, 1 year, strong.

Catalogues can be had on application. Jan. 20—m1t.

Isabella Grape Vines,

OF proper age for forming vineyards, cultivated from, and containing all the good qualities which the most improved cultivation for over fourteen years has conferred on the Croton Point Vineyards, are offered to the public. Those who may purchase will receive such instructions for four years, as will enable them to cultivate the grape with entire success, provided their locality is not too far north. All communications addressed to R. T. UNDERHILL, M. D., New-York, or Croton Point, Westchester Co., N. Y., willl receive attention. The additional experience of two past seasons, give him full assurance that by improved cultivation, pruning, &c., a crop of good fruit can be obtained every year, in most of the northern, and all the middle, western, and southern states.

N. B. To those who take sufficient to plant four acres, as he directs, he will, when they commence bearing, furnish the owner with one of his vinedressers whom he has instructed in his mode of cultivation; and he will do all the labor of the vineyard, and ensure the most perfect success. The only charge a reasonable compensation for the labor. R. T. U.

Jan. 20—m2t—w2tF&4tM

Willow Cuttings and Raspberries.

FOR sale, cuttings of the three best varieties for American culture, (*Triandra*, *Forbyana*, and *Purpurea*,) for account of which see Country Gentleman of November 27th.

Also, Hudson river Antwerp Raspberries of excellent quality. CHARLES DOWNING,

Jan. 19—w4tm2t Newburgh, Orange Co., N. Y.

The Cranberry.

THE subscriber has now works from the press in relation to Cranberry Culture, and forwards, to all applications, free of charge. Also, has Plants for sale, and will forward, to all orders by express, in a fresh state.

Address SULLIVAN BATES,

Jan. 5—1—1t Bellingham, Norfolk co., Mass.

Fruit and Ornamental Trees, &c., &c.

THE subscribers have the pleasure of announcing an immense stock of trees, &c., for the spring trade—embracing:

Standard Trees for Orchards.
Dwarf and Pyramidal Trees for Gardens.
Ornamental Trees for Streets, Parks and Pleasure Grounds.
Rare and beautiful Lawn Trees.
New and rare Weeping Trees.
Evergreen Trees, embracing the rarest species of Pines, Firs, Spruces, Yews, Cedars, Junipers, &c.
Hardy Flowering Shrubs.
Roses, of all classes, and embracing the newest and best sorts.
Dahlias, the finest English prize sorts.
Chrysanthemums, including the finest of the new Pompone varieties.
Phloxes and Pæonies, superb collections.
Bedding Plants, a complete assortment.
Hedge Plants.
Box Edging.
Rhubarb, Asparagus, &c., &c.

All orders, whether for large or small quantities, executed with the greatest care, and in strict compliance with the wishes of the purchaser. Packing done in the most secure and skillful manner, so that parcels can be transmitted thousands of miles with safety. Nurserymen and dealers in trees will be supplied on the most liberal terms

The following Catalogues are sent *gratis and pre-paid* to all who apply and inclose a postage stamp for each.

No. 1. Descrip. Catalogue of Fruits.
No. 2. do. do. Ornamental Trees, &c.
No. 3. do. do. Dahlias, Greenhouse Plants, &c.
No. 4. Wholesale Catalogue.

ELLWANGER & BARRY,

Mount Hope Nurseries, Rochester, N. Y.

Feb. 1, 1854—m2t&w2t

Fowls and Eggs.

THE subscriber has a very choice selection of Fowls that he will breed from the coming season, of the following varieties:—Royal Cochin China, white, black, buff and brown—Brahma Pootra, or Chittagong, Black Spanish, Bolton Grey or Creole, Gold and Silver Poland. All of the above breeds are pure and very large. Those who want Fowls or or Eggs of any of the above breeds will find fowls at moderate prices, and eggs at $3 per dozen. All orders post paid. Eggs carefully packed to send by express, according to direction. GEORGE ANDERSON,

Jan 19—w2tm1t 56 Schuyler street, Albany.

Brahma Pootra Fowls and Eggs for Sale.

THE subscriber offers for sale the most beautiful Brahma Pootra Fowls that can be found in the country. Also, Eggs from the same fowls next spring and summer. Price of fowls, $10 to $50 per pair; eggs, $6 per dozen.

Also, buff colored Shanghais and Eggs.

Fowls cooped and Eggs carefully packed in spring boxes, and sent to all parts of the country, by addressing, post paid,

E. GILES,

Jan., 1854—m2t Sauquoit, Oneida Co, N. Y.

Eggs for Hatching.

THE subscriber offers for sale, during the coming season, Brahma Pootra Eggs for hatching, at $4 per dozen, sent to any part of the United States or Canadas. Expenses paid to New-York, Albany or Boston.

My stock is inferior to none in the United States.

Any one purchasing Eggs of me, that is not pleased with the chicks in the fall, the money will be refunded.

Reference will be given if required.

DARIUS GARDNER,

Jan., 1854—m4t Norwich, Conn.

For Sale or Lease,

5.000 ACRES OF CHOICE FARMING LANDS in Gallatin county, Illinois, in the immediate vicinity of the extensive Mining operations of the Shawnee Coal Company. A cash market for all kinds of farm products at the mines. These lands will be sold or leased to good farmers on accommodating terms.

For particulars, apply to H. H. CASEY, Sec'y,
Corner Hanover Square and Pearl street.
New-York, Feb. 1, 1854—m5t

New-York Agricultural Warehouse.

HORSE Powers, Threshers, Fan Mills, Smut Machines, Grain Drills, Hay Presses, Grain Mills, Corn and Cob Crushers, Cider Mills, and a large assortment of Plows and all kinds of Agricultural and Horticultural Implements.

Peruvian Guano, Super-phosphate of Lime, Bone Dust and other fertilizers of the most superior kinds.

R. L. ALLEN.
Aug. 18—w mtf. 189 & 191 Water-st., New-York.

Peruvian Guano.

WE are receiving our supply of Peruvian Guano per ships Blanchard, Senator and Gray Feather from the Chincha Islands, and now prepared to make contracts for the spring supply. As the demand is large we would advise all who may be in want of this valuable manure to make early application. Price, $50 per ton of 2,000 pounds. Be particular to observe that every bag is branded,

Warranted No. 1 Peruvian Guano.

Imported into the United States by F. BARREDA, BROTHERS, for the Peruvian Government.

LONGETT & GRIFFING
State Agricultural Warehouse, No. 25 Cliff-street, New-York.
Oct. 20th—w&mtf.

United States Agricultural Warehouse and Seedstore

No. 197 Water street, near Fulton street, New-York.

MERCHANTS, Planters and Farmers, in want of AGRICULTURAL and HORTICULTURAL IMPLEMENTS or SEEDS, for shipping, plantation, farm or garden purposes, will please call and examine our extensive and superior assortment of goods in the above line, unsurpassed by any other house in the United States, for finish, material and workmanship, and of the most appreved patterns; all of which we will sell on as good terms as any other house in this city.

We have among our assortment the far-famed and unequaled EAGLE D. & F. PLOWS, warranted to draw lighter and do as good work in sod or stubble ground, as any other Plow to be found in the United States.

We also have the highest premium Straw Cutters, Fan Mills, Grain Mills, Premium Stalk Cutters, Horse Powers, Threshers and Separators of different kinds; Ketchum's celebrated Mowing Machine, unsurpassed; Hussey's Reaping Machine —also, McCormick's Cotton Gins, Cotton Presses, Hay and Hide Presses, Brick Machines, Harrows of all kinds, Sugar Mills for plantation use, Sugar Mills for grocer's use, Hand Store Trucks of all kinds, Mule Carts, Horse Carts, Farm Wagons, Wheel Barrows, Coal and Canal Barrows. In fact we have everything for shippping or using on plantation, arm or garden. JOHN MAYHER & CO.

N. B. Guano, Bone Dust, Poudrette, Superphosphate of Lime, and other fertilisers. Jan 1, 1853—m&wtf

Albany Medical College.

The next Course of Lectures will commence on Tuesday the 21st of February next.

TWO Courses are delivered annually at this institution; one commencing on the first Tuesday in September, and the other on the third Tuesday in February, containing each sixteen weeks. Degrees are conferred at the close of each term.

ALDEN MARCH, M. D., Professor of Surgery.
JAMES McNAUGHTON, M. D., Prof. of the Theory and Practice of Medicine.
JAMES H. ARMSBY, M. D., Prof of Anatomy.
THOMAS HUN, M. D., Prof. of the Institutes of Medicine and Materia Medica.
AMOS DEAN, Esq., Prof. of Medical Jurisprudence.
HOWARD TOWNSEND, M. D., Prof. of Obstetrics.
EZRA S. CARR, M. D., Prof. of Chemistry and Pharmacy.

Fees for the first Course, $60; for both Courses, if paid in advance, $100. Matriculation fee, $5; Graduation fee, $20. The Clinical Lectures at the Hospital, are free of charge. There will be Cliniques every Saturday, as usual, in the College. Expenses for boarding from $2 to $3 per week.

45w8tm3t HOWARD TOWNSEND, Register.

Stalk, Straw and Hay Cutters.

SINCLAIR'S Patent Screw Propelling Cutter, a very superior article.

Berthoff's patent, a large and powerful machine for horse-power.

Daniel's patent, much approved of.

Also, Hovey's, Forbes & Doane's, and other makes of cylinder cutters. For sale by

LONGETT & GRIFFING,
Jan. 1—m2t 25 Cliff street, New-York.

Shepherd Wanted.

WANTED—an experienced Shepherd to take care of a flock of sheep near Boston. Address, with terms and references, to HOVEY & CO.,
Dec. 1—mtf 7 Merchants' Row, Boston.

Devon Cows,

HEIFERS, and Bull Calves—pure blood—for sale by
Feb. 1—m1y. B. V. FRENCH, Braintree, Mass.

Suffolk Pigs,

OF pure blood, for sale by B. V. FRENCH,
Feb. 1—m1y Braintree, Mass.

Valuable Blood Stock for Sale.

FULL BLOOD DURHAMS—2 Cows, 1 Heifer Calf and 1 Yearling Bull of the celebrated *Morris Stock*.

1 Full Blood Devon Bull, 4 years old, of the *Hurlbut Stock* of Conn.

1 Full Blood *French Merino* Buck, 14 *Half Blood* yearling Bucks and a lot of Lambs, half bloods.

Suffolk Pigs constantly on hand, of the purest blood.

The above stock has been collected and reared with the greatest care and expense, and are now offered for sale upon the most reasonable terms on application to

Nov. 3—m3t. J. R. UPHAM, Claremont, N. H.

Suffolk Pigs.

THE subscribers are prepared to receive orders for pure Suffolk Pigs, bred from stock imported in 1848 by the late William Stickney, also by the subscribers in Jan. last. Address, JOSIAH STICKNEY, Boston or Watertown, or
ISAAC STICKNEY, Boston, Mass.
September 1—m6t.

[illegible]ney Fowls for Sale.

THE subscriber offers for sale one hundred pairs of Brahma Pootra, Shanghae, Cochin China, and Bolton Greys, all warranted pure. THO'S WRIGHT.
Utica, Nov 1, 1853.—m3t

Basket Willow.

CUTTINGS of the best European OSIER WILLOW will be furnished by the subscriber at $3 per thousand. They can be forwarded during the winter to any part of the Union. Orders will meet with prompt attention.

Address C. P. WILLIAMS,
Jan. 1—mtf Albany, N. Y.

Farm for Sale.

THE farm lately owned and occupied by Richard Dey, deceased, situated on the eastern bank of the Seneca lake, in the township of Fayette, county of Seneca, and State of New-York. It contains about 158 acres of very fertile and finely situated land, not an inch of which but what is capable of tillage: it slopes gently to the lake, and is in full sight of, and only 7 miles from, the beautiful town of Geneva, adjoining the premium farm of Andrew Foster, Esq. 50 acres are in wood, 8 acres in orchard of superior grafted fruit, and the balance in pasture and grain. The buildings consist of a plain farm house, in good repair, and also good barns, sheds, work-shops, carriage house, chicken houses and granary, a good well of water and a running spring.

This farm is offered low to close an estate. The price, $50 per acre, and the terms of payment can be made to suit almost any purchaser. Apply to

R. DEY,
74 Cortlandt street, New-York, or
CHAS. A. COOK, Esq.,
Dec. 1—m3t President of the Bank of Geneva.

8000 BUSHELS OF BONE DUST, SUPERIOR TO anything in market, for sale either by the bushel or barrel. Also, 500 loads of rich Compost Manure.

THOMAS COULSON,
Jan. 17—w1y 500 Bowery, Albany, N. Y.

Contents of this Number.

ILLUSTRATIONS.

UNIVERSITY OF ALBANY,

Department of Civil Engineering.

PROF. GEORGE W. PLYMPTON, INSTRUCTOR.

THE first course of instruction in this Department will commence on Tuesday the 22d day of February, 1854, and continue during the term of three months. Tuition $10 per term. The instruction will be fundamental and thorough and be conducted with special reference to the wants of those who intend to adopt Engineering as a profession. The method of instruction will be by *lectures, recitations* and *field exercises*. Students will perform Surveys by themselves as soon as they become familiar with the use of instruments. There will be *four lectures* each week, and two or three field exercies. Students will have free access to the State Geological Collections, and to Prof. CARR'S courses of lectures on Chemistry.

Price of Boarding from $2 to $3 per week.

For further information, address Prof. GEO. W. PLYMPTON, Albany, N. Y.

References.

Prof. S. B. WOOLWORTH, Prof. GEO. R. PERKINS,
Prof. CHARLES DAVIES, Prof. B. F. GREENE.

January 5.

Fancy Lop-eared Rabbits.

A FEW pairs for sale. Price, $12 per pair, delivered on board the cars or steamboat at Hudson, N. Y.

Address S. V. C. VAN RENSSELAER,
Dec. 22—w2tm2t Claverack, Columbia co., N. Y.

Short-Horned Bulls & Suffolk Pigs for Sale.

I HAVE three one-year old Bulls for sale, got by my imported bull Vane Tempest—colors, roan and red.

Also, a few pairs of choice Suffolk Pigs bred from my imported stock. J. M. SHERWOOD,
Jan. 20—w3tm2t Auburn, N. Y.

Thorough-Bred Short-Horns for Sale.

A VERY fine young roan bull, calved June 3d, 1853, got by Mr. Vail's American Comet 2d, (who was got by Prince Leopold, dam Hilpa 3d by Duke of Wellington, (3,654) gr. d. imported Hilpa by Cleveland Lad, (3,407) &c., &c. Prince Leopold was got by the Bates prize bull Meteor, (11,811) d. imported roan cow Flora, by Imperial, (2,151) &c.) The Dam of the young bull is Lady Bird, who was got by the Bates bull Eclipse, bred by Mr. Vail, and got by Meteor, (11,811) out of imported Arabella, bred by Mr. Bates, and got by 4th Duke of Northumberland, (3,649) g. d. by Duke of Cleveland, g. g. d. by Belvidere, (1,706) &c., &c. His gr. dam is Fillpail 2d, by Gen. Van Rensselaer's Ajax—g. g. d. by imported Copson, (3,482)—g. g. g. d. by imported Comet, by imported Nelson, &c., &c

Also, three very fine young heifers, calved during May and June last, all descended from Mr. Vail's imported stock, crossed upon that of Gen. Van Rensselaer, very desirable for breeders, &c., full pedigrees of which will be furnished if requested. Dr. HERMAN WENDELL.

Albany, Jan. 9, 1854—w2tm1t

Short-Horns.

I HAVE on hand and for sale two Short-Horn Bull Calves, of good pedigree and fashion. JOHN R. PAGE,
Jan. 12, 1854—w4tm1t* Sennett, Cayuga co., N. Y.

Devons For Sale.

I HAVE two full-blood Devon Bull Calves for sale. They were sired by Champion, the bull which received the first prize at the New-York State Fair at Utica, and a portrait of whom was published in the Cultivator for December, 1852.

Also, for sale, two thorough-bred Devon Cows.

L. H. COLBY,
Jan. 19—w2tm1t Scipioville, Cayuga co., N. Y.

Fertilizers.

PERUVIAN GUANO, Super-phosphate of Lime of the following brands, Deburgh, Paterson, and Wood,
Bone Dust—sawings or meal, turnings and ground,
Potash Scrapings, Pulverized Charcoal,
Ground Land Plaster, Sulphuric Acid.

For sale at the State Agricultural Warehouse or
LONGETT & GRIFFIN,
Jan. 17—w2m—m4t 25 Cliff street, New-York.

Poudrette.

THE LODI MANUFACTURING CO. offer their Poudrette for sale in lots to suit purchasers, from one barrel up to 4,000 barrels, at their usual rates, viz. $1,50 per barrel for any quantity over seven barrels, delivered on board of vessels in the city of New-York free of cartage or other expense. When 200 to 300 barrels are taken, a deduction will be made from the above price. That this article has stood the test of 14 years' trial, is proof of its efficacy. It is the cheapest and best manure for corn ever produced, and it has the advantage of being useful in small quantities and harmless in large. It is a capital manure for peas, strawberries, &c., &c., and all garden vegetables.

Apply by letter or personally to the Lodi Manufacturing Co., 74 Courtland street, New-York.

Jan. 19—w4m—m4t

THE CULTIVATOR:

A MONTHLY JOURNAL OF

Agriculture, Horticulture, and Domestic Economy.

THE PRICE REDUCED TO 50 CENTS A YEAR.

All subscriptions must commence with the January No. and the payments must in all cases accompany the order for the paper. LUTHER TUCKER,
Publisher, Albany, N. Y

Postmasters and all friends of agricultural improvement, are respectfully invited to act as agents for THE CULTIVATOR and THE COUNTRY GENTLEMAN.

Single copies, Fifty Cents—Eight copies $3—any larger number at the same rate.